

**STATE OF ILLINOIS**  
**ILLINOIS COMMERCE COMMISSION**

<b>Commonwealth Edison Company</b>	<b>:</b>	
	<b>:</b>	
<b>Petition for Approval of the Energy</b>	<b>:</b>	<b>07-0540</b>
<b>Efficiency and Demand-Response Plan</b>	<b>:</b>	
<b>pursuant to Section 12-103(f) of the Public</b>	<b>:</b>	
<b>Utilities Act.</b>	<b>:</b>	

**ORDER**

February 6, 2008

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**ORDER**

By the Commission:

**1. The Procedural History of this Docket**

On November 5, 2007, Commonwealth Edison Company (“ComEd”) filed a petition with the Illinois Commerce Commission (“Commission”) requesting approval of its 2008-2010 Energy Efficiency and Demand Response Plan to be filed on November 15, 2007. This petition was filed in advance because of the expedited nature of this proceeding so that the Commission could give sufficient notice to municipalities served by ComEd prior to the first status hearing. On November 15, 2007, ComEd filed its supplemental petition pursuant to Section 12-103 of the Public Utilities Act (“Act”), 220 ILCS 5/12-103, requesting that the Commission issue an order on or before February 15, 2008 approving ComEd’s Plan and its proposed cost-recovery mechanism, Rider EDA – Energy Efficiency and Demand Response Adjustment (“Rider EDA”). The supplemental petition included both the Plan and supporting direct testimony. The Illinois Department of Commerce and Economic Opportunity (“DCEO”) also filed a petition, supporting direct testimony, and rebuttal testimony.

In response to ComEd’s and DCEO’s filings, each of the following parties contended that they had an interest in the outcome of the proceeding and filed a petition to intervene or entered an appearance in this docket, or in docket 07-0541, which is now a part of this docket: the People of the State of Illinois, (the “AG”) the Citizens Utility Board, (“CUB”) Constellation Energy Commodities Group, Inc., Constellation NewEnergy, Inc., Illinois Industrial Energy Consumers (“IIEC”), the Environmental Law & Policy Center, (“ELPC”) the City of Chicago, (the “City”) the ConsumerPowerline, BlueStar Energy Services, Inc., the Natural Resources Defense Council, (the “NRDC”) the Building Owners and Managers Association of Chicago, (“BOMA”) the Coalition of Energy Suppliers, and the Environment Illinois Research and Education Center.

Public forums to receive public comments regarding ComEd’s Plan were held on November 29, 2007 and December 4, 2007. ConsumerPowerline filed Comments on November 30, 2007. The City filed Comments on November 30, 2007 and again on December 4, 2007. IIEC filed Comments on December 3, 2007. NRDC filed

Comments on December 6, 2007. In conformance with the due process requisites requiring notice of the issues to be tried, before an opportunity to be heard on those issues can be had on those issues, all participating parties filed Comments or Prehearing Memoranda setting forth their positions and/or any legal issues related to those positions.

Staff and the following Intervenors filed Direct Testimony: the IIEC, the City of Chicago, CUB, the ELPC, the AG, BOMA and the NRDC. ComEd filed Rebuttal testimony on December 21, 2007.

Pursuant to notice duly given in accordance with the law and the rules and regulations of the Commission, an evidentiary hearing was held before duly authorized Administrative Law Judges (“ALJs”) of the Commission, at its offices in Chicago, Illinois, on January 4, 2008. The hearing included three dockets; namely, 07-0539, (Ameren’s Energy Efficiency docket), 07-0540 (the instant docket), and 07-0541 (DCEO’s Energy Efficiency docket) simultaneously. The ALJs marked the record “Heard and Taken” on January 4, 2008. On that day, Staff moved to sever DCEO’s docket and place the appropriate documents from that docket in 07-0539 and 07-0540. This motion was granted on January 9, 2008, *nunc pro tunc* to January 4, 2008. That ruling noted that DCEO has statutory obligations pursuant to the new statute, and thus it is really a joint petitioner in dockets 07-0539 and 07-0540. Therefore, the appropriate documents from 07-0541 were placed in the e-docket files for 07-0540 and 07-0539, effective January 4, 2008. The parties filed simultaneous briefs on January 14, 2008.

The statutorily-imposed mandate for commencing this docket was November 15, 2007. The statutorily-imposed deadline for a final Commission order in this docket is February 15, 2008. Despite the obviously severe limitations imposed by the General Assembly upon litigation of this matter, counsel for all entities and parties involved in this docket used extraordinary efforts to provide this Commission with a complete analysis of the issues involved in this docket. We note that the issues in this docket involve the statutorily-mandated imposition of energy efficiency and demand response standards, which are intended to reduce energy consumption, thereby reducing energy costs, pollution from emissions and the need to for new generation, transmission and distribution infrastructure. (220 ILCS 5/12-103(a)).

## **II. The Statutory Framework**

On July 26, 2007, the Illinois General Assembly passed Senate Bill 1592. The Governor signed the bill into law on August 28, 2007, creating Public Act 95-0481 (“PA 95-0481”). Among the provisions of this comprehensive legislation, PA 95-0481 creates a new Section 12-103 of the Act. Section 12-103 requires that Illinois utilities subject to the Act implement energy efficiency and demand response programs to meet aggressive energy reduction goals.

Section 12-103(a) of this statute sets forth the policy objectives underlying the statute. The statute states that:

It is the policy of the State that electric utilities are required to use cost-effective energy efficiency and demand response measures to reduce delivery load, . . . and recognizes that [r]equiring investment in cost-effective energy efficiency and demand-response measures will reduce direct and indirect costs to consumers by decreasing environmental impacts and by avoiding or delaying the need for new generation, transmission, and distribution infrastructure.

(220 ILCS 5/12-103(a)). It also ensures that the utilities will receive total and complete cost recovery for such measures, because “[i]t serves the public interest to allow electric utilities to recover costs for reasonably and prudently incurred expenses for energy efficiency and demand-response measures.” (*Id.*).

Subsection (b) of that same statute requires utilities to “implement cost-effective energy efficiency measures to meet the following incremental annual energy savings goals: (1) 0.2% of energy delivered in the year commencing June 1, 2008; (2) 0.4% of energy delivered in the year commencing June 1, 2009; [and] (3) 0.6% of energy delivered in the year commencing June 1, 2010 . . . .” (220 ILCS 5/12-103(b)).

Subsection (c) addresses demand response, which “means measures that decrease peak electricity demand or shift demand from peak to off-peak periods.” (20 ILCS 3855/1-10). Therefore, utilities must “implement cost-effective demand-response measures to reduce peak demand by 0.1% over the prior year for eligible retail customers.” (220 ILCS 5/12-103(c)).<sup>1</sup>

“Cost-effective” as used in Section 12-103(b) and (c) are “measures [that] satisfy the total resource cost (the “TRC”) test.” (220 ILCS 5/12-103(a)). The Illinois version of the TRC test is defined as follows:

A “Total Resource Cost test” or “TRC test” means a standard that is met if, for an investment in energy efficiency or demand-response measures, the benefit-cost ratio is greater than one. The benefit-cost ratio is the ratio of the net present value of the total benefits of the program to the net present value of the total costs as calculated over the lifetime of the measures. A total resource cost test compares the sum of avoided electric utility costs, representing the benefits that accrue to the system and the participant in the delivery of those efficiency measures, to the sum of all incremental costs of end-use measures that are implemented due to the program

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<sup>1</sup> “Eligible retail customers” are “retail customers that purchase power and energy from the electric utility under fixed-price bundled service tariffs, other than those retail customers whose service is declared or deemed competitive . . . and those other customer groups specified in this Section, including self-generating customers, customers with hourly pricing, or those customers who are otherwise ineligible for fixed-price bundled tariff service.” (220 ILCS 5/16-111.5). This group includes all residential supply customers (except those on the hourly pricing plan) and small business supply customers (except those on the hourly pricing plan) with demands less than 100 kilowatts. The business customers in this group represent only about 19% of ComEd’s total non-residential energy delivery (as opposed to supply) customers.

(including both utility and participant contributions), plus costs to administer, deliver, and evaluate each demand-side program, to quantify the net savings obtained by substituting the demand-side program for supply resources. In calculating avoided costs of power and energy that an electric utility would otherwise have had to acquire, reasonable estimates shall be included of financial costs likely to be imposed by future regulations and legislation on emissions of greenhouse gases.

(20 ILCS 3855/1-10). The Illinois version differs from the standard formulation in other states because generally, a TRC test requires that “the standard formulation includes the value of all energy savings attributable to a measure.” The Illinois version, on the other hand, includes only the value of electricity savings; it excludes natural gas savings.” (ComEd Ex. 6.0 at 15-6; AG Ex. 1.0 at 2).

**a. The Statutory Spending Screens**

Subsections (d) and (e) of Section 12-103, however, modify ComEd’s obligations under subsections (b) and (c). Section 12-103(d) provides for a “spending screen,” which limits the Plan’s effects on rates. It provides that :

[A]n electric utility shall reduce the amount of energy efficiency and demand-response measures implemented in any single year by an amount necessary to limit the estimated average increase in the amounts paid by retail customers in connection with electric service due to the cost of those measures to:

(1) in 2008, no more than 0.5% of the amount paid per kilowatt hour by those customers during the year ending May 31, 2007;

(2) in 2009, the greater of an additional 0.5% of the amount paid per kilowatt hour by those customers during the year ending May 31, 2008 or 1% of the amount paid per kilowatt hour by those customers during the year ending May 31, 2007;

(3) in 2010, the greater of an additional 0.5% of the amount paid per kilowatt hour by those customers during the year ending May 31, 2009 or 1.5% of the amount paid per kilowatt hour by those customers during the year ending May 31, 2007.

(220 ILCS 5/12-103(d)).

**b. Coordination With State Agencies**

Section 12-103(e) of the statute requires that the Utility and the Department of Commerce and Economic Opportunity (“DCEO”) must share the duties of implementing

the energy efficiency measures. Specifically, the statute provides that “[e]lectric utilities shall implement 75% of the energy efficiency measures approved by the Commission . . . . The remaining 25% of those energy efficiency measures approved by the Commission shall be implemented by the Department . . . and must be designed in conjunction with the utility and the filing process.” (220 ILCS 5/12-103(e)). At least 10% of the entire portfolio of cost-effective energy efficiency measures must be procured from units of local government, municipal corporations, school districts, and community college districts, and DCEO must “coordinate the implementation of such measures.” (*Id.*). “The portfolio of measures, administered by both the utilities and [DCEO], shall, in combination, be designed to achieve the annual savings targets” in the statute. (*Id.*).

**c. Cost Recovery**

Consistent with the policy objectives in Section 12-103(a), to ensure effective energy efficiency and demand response programs, Section 12-103(e) permits the utility to recover the costs of such programs “through an automatic adjustment clause tariff filed with and approved by the Commission.” (220 ILCS 5/12-103(e)). The statute also calls for the Commission to conduct an annual prudence “review to reconcile any amounts collected with the actual costs and to determine the required adjustment to the annual tariff factor to match annual expenditures.” (*Id.*).

**d. The Filing Requirements For Commission Approval Of the Plan**

Section 12-103(f) of the Act sets forth the elements that a utility must include in its plan, when it files with the Commission, on or before November 15, 2007, which, in turn, must show how it will meet the energy efficiency and demand response goals for the Plan years 2008 through 2010. Each utility must set forth in its plan its “proposal to meet [its] portion of the energy efficiency standards identified in subsection (b) and the demand-response standards identified in subsection (c), as modified by subsections (d) and (e).” Thus, a utility must make the following showing:

It must (1) demonstrate that its proposed energy efficiency and demand response measures will achieve the requirements that are identified in subsections (b) and (c) of this Section, as modified by subsections (d) and (e);

it must (2) present specific proposals to implement new building and appliance standards that have been placed into effect;

it must (3) present estimates of the total amount paid for electric service expressed on a per kilowatt hour basis associated with the proposed portfolio of measures designed to meet the requirements that are identified in subsections (b) and (c) of this Section, as modified by subsections (d) and (e);



it must (4) coordinate with the Department and the Department of Healthcare and Family Services to present a portfolio of energy efficiency measures targeted to households at or below 150% of the poverty level at a level proportionate to those households' share of total annual utility revenues in Illinois;

it must (5) demonstrate that its overall portfolio of energy efficiency and demand-response measures, not including programs covered by item (4) of this subsection (f), are cost-effective using the total resource cost test and represent a diverse cross-section of opportunities for customers of all rate classes to participate in the programs;

it must (6) include a proposed cost-recovery tariff mechanism to fund the proposed energy efficiency and demand-response measures and to ensure the recovery of the prudently and reasonably incurred costs of Commission-approved programs.

It must (7) provide for an annual independent evaluation of the performance of the cost-effectiveness of the utility's portfolio of measures and the Department's portfolio of measures, as well as a full review of the 3-year results of the broader net program impacts and, to the extent practical, for adjustment of the measures on a going-forward basis as a result of the evaluations. The resources dedicated to evaluation shall not exceed 3% of portfolio resources in any given year.

(220 ILCS 5/12-103(f)).

**e. Breakthrough Technologies**

Section 12-103(g) of the statute provides that “[n]o more than 3% of energy efficiency and demand-response program revenue may be allocated for demonstration of breakthrough equipment and devices.” (220 ILCS 5/12-103(g)).

**f. Penalties**

Section 12-103(i) sets forth penalties if utilities fail to meet the Act's energy efficiency savings goals. The immediate penalties are:

If, after 2 years, (*sic*) an electric utility fails to meet the efficiency standard specified in subsection (b) of this Section . . . it shall make a contribution to the Low-Income Home Energy Assistance Program. . . . a large electric utility shall pay \$665,000.

(220 ILCS 12-103(i)).

### **III. ComEd's Plan**

#### **A. The Stakeholder Advisory Committee**

##### **1. The Advisory Committee or Stakeholder Group**

ComEd's witness Mr. Brandt testified that ComEd engaged in a thorough planning process, which included meetings with many stakeholders and national energy efficiency experts to determine what has worked in other locations and what is most desirable and attainable in the ComEd service territory. (ComEd Ex. 2.0 at 10-12). In fact, ComEd held its initial meeting with stakeholders the same day the Governor signed into law PA 95-0481. This meeting and subsequent meetings provided stakeholders with an overview of the proposed planning process and to solicit program ideas. (*Id.* at 10-11). The following stakeholders participated in discussions about the development of ComEd's Plan: BOMA; Center for Neighborhood Technology; CUB; the City; Environment Illinois; ELPC; IIEC; Metropolitan Mayor's Caucus; Midwest Energy Efficiency Alliance ("MEEA"); AG; NRDC; and Staff of the Illinois Commerce Commission. ComEd also met with DCEO twice weekly throughout the planning process to coordinate on the statutorily required split of energy efficiency programs between ComEd and DCEO. (*Id.*).

ComEd adopted many of the stakeholders' suggestions, and incorporated them into its Plan. For example, based on stakeholder input, ComEd's Plan presents its programs as broad solutions-based offerings, which are intended to provide a "one-stop" shopping experience, rather than as a number of individual programs. (ComEd Ex. 2.0 at 11). The Plan also incorporates the following stakeholder suggestions, among others: (i) adding a program element for the collection of old room air conditioners ("ACs"), (ii) boosting the estimated participation and funding for retro-commissioning building projects, (iii) increasing estimated participation and funding for custom incentives, (iv) shifting the provision of whole building energy consumption information from a fee-based service to a program element available for free to customers participating in the Business Solutions program, and (v) reducing the estimated participation and budget for the residential lighting program element. (*Id.* at 11-12).

##### **b. The Portfolio of Programs**

ComEd's Plan presented a portfolio that includes a mix or balance of investments designed to meet the statutory savings goals, as well as satisfying other important policy and strategic objectives, while also falling within the statutory spending screens. (ComEd Ex. 2.0 at 12). The portfolio is a three-year integrated plan, with each year building into a more comprehensive portfolio. (ComEd Ex. 2.0, at 13).

ComEd's Plan is made up of measures, program elements, and programs. Mr. Brandt explained that an energy efficiency measure is an individual technology (e.g., compact fluorescent light bulb ("CFL")) or service (e.g., an AC tune-up) that reduces the amount of electricity used when installed or performed. (ComEd Ex. 2.0, at 15; see also ComEd Ex. 6.0 at 5-6). An energy efficiency program or program element consists of

the bundling of one or more energy efficiency measures into an entire program concept, which includes program delivery mechanisms, incentive rebate levels, and marketing approaches. (ComEd Exs. 2.0, at 15; 6.0 at 6).

For example, a commercial and industrial prescriptive incentive program, in which, a utility provides fixed incentives for a wide variety of standard commercial and industrial energy efficiency measures, is a program element. Mr. Jensen testified that, within the program element structure, the utility often will work with trade allies such as lighting or heating, ventilation and air conditioning (“HVAC”) contractors to recruit customers who would benefit from installing these measures. (ComEd Ex. 6.0 at 6).

ComEd’s witness Mr. Jensen, identified energy efficiency measures and programs, relying on the results of the TRC test to determine the cost-effectiveness of each measure and program. (See, ComEd Exs. 2.0 at 16; 6.0 at 2). The resulting portfolio is designed to achieve the annual kilowatt-hour savings and to build the required infrastructure for future programs. (*Id.*) Its development process consisted of three primary stages – energy efficiency measure analysis, program analysis, and portfolio design. (ComEd Ex. 2.0 at 16).

#### **c. Measure Selection**

The energy efficiency measure analysis was designed to conduct a cost-effectiveness test of individual energy efficiency measures. (ComEd Ex. 2.0 at 16). Before such a test could be conducted, however, ComEd first had to identify a universe of potential measures. ICF International (“ICF”), reviewed measures from several sources, principally among them the Information base for energy efficiency Resources (“DEER”), which contains thousands of measures for residential, commercial, and industrial buildings, and which is maintained by the California Energy Commission. (ComEd Ex. 6.0 at 6). For each measure, the information base provides an estimate of the energy savings per unit, as well as the costs associated with installation of the measures. (*Id.* at 6-7). Additional resources included the Consortium for Energy Efficiency, the American Council for an Energy Efficient Economy (“ACEEE”), and the Regional Technical Forum information base maintained by the Northwest Power and Conservation Council. Mr. Jensen testified that many of the measures in DEER have equal applicability to any jurisdiction. Every California utility uses DEER as the primary source of measure information in the design and evaluation of energy efficiency programs in that state, as do various utilities and state agencies in other states. (*Id.* at 7).

#### **d. Non-Weather Sensitive Measures**

For weather-sensitive measures, ComEd used DEER as a source for basic weather-sensitive measure definitions, but also developed independent estimates of measure savings based on information collected from several weather stations in the Chicago area. (ComEd 6.0 at 7-8). Although the information base does not include all possible energy savings measures, it comports with standard industry practice, which restricts analysis during initial planning to measures within a set of common building types that could account for the majority of energy efficiency potential in a given area.

This list is comprehensive and will allow for additional measures to be easily screened and implemented. (*Id.*).

Ultimately, many of the 1900 measures included in the final information base were combinations or variations of basic measures, such as different wattages of CFLs or different configurations of what are known as T8 linear fluorescent lamps, and a number of specific measures were analyzed for multiple building types. (ComEd Ex. 6.0 at 7). Of the 1927 measures screened, 257 were in the residential sector, 942 were commercial measures, and 728 were industrial measures. (*Id.* at 17).

#### **e. TRC Analysis**

Measure analysis is designed to conduct a cost-effectiveness test based on various energy efficiency and demand response measures, and cost-effectiveness in Illinois is measured with the TRC test. The Illinois TRC test compares the benefits realized by installing a measure with the costs to install that measure. Benefits are calculated as the product of the measure's estimated energy and peak demand savings and the utility's avoided cost, and costs are the incremental capital, installation and operating and maintenance ("O&M") costs. The incremental cost is defined as the difference between the cost of the efficiency measure and the cost of the measure that otherwise would have been installed (*e.g.*, the difference in cost between purchasing a basic appliance and an energy efficiency appliance). (ComEd Ex. 6.0 at 9-10). Mr. Jensen explained that the formula for the Illinois TRC test is as follows:

TRC = Benefits/Costs

$$BTRC = \sum_{t=1}^N \frac{UAC_t}{(1+d)^{t-1}}$$

$$CTRC = \sum_{t=1}^N \frac{PRC_t + PCN_t + UIC_t}{(1+d)^{t-1}}$$

Where:

BTRC = Benefits of the program

CTRC = Costs of the program

$UAC_t$  = Utility avoided supply costs in year t

$UIC_t$  = Utility increased supply costs in year t

$PRC_t$  = Program Administrator (Utility) program costs in year t

$PCN_t$  = Net Participant Costs in year t

d. = discount rate

(*Id.* at 14-15).

The Illinois TRC test differs from the test used in other states in two notable ways. The standard formulation, including the one used in California, includes the value of tax credits in calculating the benefits of an efficiency measure. The standard formulation also includes the value of all energy savings attributable to a measure, whereas the Illinois version excludes natural gas savings and includes only the value of electricity savings. Exclusion of natural gas is important because certain measures, such as insulating a house, may fail the Illinois TRC test despite reducing both electricity and natural gas usage, and therefore the total number of available measures is reduced. (ComEd Ex. 6.0 at 16).

Mr. Jensen also explained that, before applying the TRC test to the individual energy efficiency measures, ComEd was required to gather additional information and perform further analyses. (ComEd Ex. 6.0 at 10). The measures were first divided into two categories, weather sensitive, such as air conditioning, and non-weather sensitive, such as lighting. (*Id.*). Generally, the savings and cost information associated with non-weather-sensitive measures were taken from DEER.

In several cases, however, as Mr. Jensen noted, ComEd supplanted DEER measure costs with more recent local information. (*Id.* at 11). For example, the costs used for replacement room air conditioners were based on prices that were recently quoted online by Sears and Wal-Mart, and residential sector CFL cost estimates were based on information collected by MEEA as part of its Change-a-Light campaign that was conducted in 2007. (*Id.*).

Mr. Jensen explained that ComEd determined the cost-effectiveness of programs by running the TRC test on the programs. (ComEd Ex. 6.0 at 25). When screening measures, the PRC term (program administrator costs) in the Illinois TRC test set forth above is set to zero. (*Id.*). For program-level screening, however, the PRC term takes a value equal to the sum of the cost to implement and administer the program. In addition, although measure screening focused on the cost-effectiveness of a single measure, at the program level, ComEd must also project the number of measures that it expects to be adopted as a result of the program. (*Id.*). The TRC test must also take into account free-riders and free-drivers. (*Id.* at 25-26). The principal source of the net-to-gross ("NTG") ratio estimates was the California Energy Efficiency Policy Manual as referenced in the DEER online information base. (ComEd Ex. 6.0 at 28).

Mr. Jensen conducted a TRC test for the demand response program, "Nature First," based on information provided by ComEd, and that the proposed expansion of the Nature First program passed the TRC test with an estimated benefit-cost ratio of 1.05. (ComEd Ex. 6.0 at 31). In addition, a TRC test was run on DCEO's proposed programs, and all but the low-income measures proved cost-effective. (*Id.* at 31-32). Mr. Jensen also explained that the portfolio as a whole, including both the ComEd and DCEO programs, passed the TRC test with a benefit-cost ratio of 1.43. (*Id.* at 32). Moreover, the various programs are designed to meet the statutory savings goals, which are as follows: (1) year commencing in June 2008 – savings goal of 188,739

MWh; (2) year commencing in June 2009 – savings goal of 393,691 MWh; and (3) year commencing in June 2010, savings goal 584,077 MWh. (ComEd Ex. 1.0 at 5, Table 2). The Plan, when considered in conjunction with DCEO, results in the following energy savings in each of the Plan's years: in 2008, it is designed to achieve a savings of 206,841 MWh; in 2009, it is projected to achieve 407,328 MWh in savings; and in 2010, it is expected to achieve 602,508 MWh in savings. (*Id.*).

For each program element, ComEd also outlined an implementation strategy, marketing strategy and incentive strategy, which describes the anticipated steps to be taken in implementing a program, including reference to target market segments, recruiting of customers and other market actors, the role of these actors, provision of technical assistance and training, and the incentive fulfillment process. (ComEd Ex. 2.0 at 17). Program analysis also involves projections of annual participation by energy efficiency measure, a projected annual program budget, and an evaluation, measurement and verification strategy. Only those program elements that pass this analysis move on to the next stage, portfolio design. (*Id.*).

#### **f. Weather-Sensitive Measures**

For weather-sensitive measures, ComEd developed independent estimates of measure savings using the (Department of Energy) DOE-2 model, a building energy simulation model originally developed with Department of Energy funding that is now in the public domain. (*Id.*). This model is the industry standard for simulating the hour-by-hour energy use of a building and its component systems. ComEd used the DOE-2 model to develop separate estimates of measure savings for a wide range of measures by simulating the operation of 12 prototypical commercial building types and three prototypical residential housing types in ComEd's territory, using information from several weather stations in the ComEd territory. (*Id.*). For residential weather-sensitive measures, ComEd modeled a detached single-family residence, an attached single family residence and a multi-family residence, all of which, were heated with natural gas given the very high saturation of gas heat in the ComEd territory. In addition, several different types of air conditioning were also modeled for the commercial building types. (*Id.*).

ComEd also estimated the useful life of each measure, as the TRC test analysis accounts for all of the energy savings realized by implementation of a measure over time. (ComEd Ex. 6.0 at 12). Mr. Jensen noted that the cost-effectiveness analysis requires a discount rate that is used to estimate the present value of the efficiency measure's costs and benefits. (*Id.*).

ComEd developed an hourly disaggregation of measure energy savings to ensure energy savings were valued properly, which Mr. Jensen explained is necessary because avoided costs typically can vary by hour and will be significantly higher during certain times of the year and hours than others. (ComEd Ex. 6.0 at 12). It used the avoided energy and capacity costs based on a forecast of wholesale energy prices for 36 groups of hours per year (peak, off-peak and wrap periods for each month in the year) for a 20-year forecast period. (*Id.* at 13). As a result, measure energy savings were grouped into the same 36 "buckets" of hours so that ComEd was able to multiply

avoided cost by energy and peak savings to yield an estimate of the annual benefit from installing a particular measure. (*Id.*).

The forecast included values for CO<sub>2</sub> based on the price cap in the Bingaman-Specter Bill (Low Carbon Economy Act), which establishes a national carbon program as of 2012. (ComEd Ex. 8.0 at 5-6). The CO<sub>2</sub> price cap starts at \$12/tonne in 2012, and increases at 5% plus inflation annually thereafter, with the impact of CO<sub>2</sub> on the electric price a function of marginal price-setting generation in the PJM Interconnection, L.L.C. ("PJM") ComEd Zone. (ComEd Ex. 6.0 at 13).

Because DEER provides estimates of annual energy savings and peak demand reductions, ComEd used a two-step process to convert those annual values to 36 values matching the avoided cost periods. (ComEd Ex. 6.0 at 13). It first used normalized load shapes for non-weather-sensitive measures to split an estimate of annual energy savings into estimates of hourly savings. Then, its personnel aggregated the estimated hourly energy savings and demand reductions to match the 36 avoided cost periods. (*Id.* at 14). For weather-sensitive measures, because ComEd used the DOE-2 simulation model to develop hourly estimates of energy savings, it did not need to go through the first step noted above. (*Id.* at 12). Rather, the analysis moved directly to the second step and aggregated the DOE-2 hourly outputs into the 36 periods. (*Id.* at 14).

Based on the above-described analysis, ComEd calculated the value of the TRC test for each of the measures in the information base. (ComEd Ex. 6.0 at 14). Measures that scored a ratio of benefits to costs of 1.0 or greater were considered to pass the TRC test. (*Id.*). Mr. Jensen's testimony provides the Illinois TRC test formula, "[i]n general terms, the TRC test compares benefits (avoided costs \* energy and demand savings) and costs (incremental capital, installation and O&M costs of measures + utility implementation and administrative costs). This test is often used to assess the cost-effectiveness of individual energy efficiency measures as well as energy efficiency programs. Because, at this stage, there are no program costs, the analysis of measures does not include variables such as Program Administrator program costs. (*Id.* at 14-15).

ComEd's TRC analysis included both energy efficiency measures and demand response measures. (ComEd Ex. 6.0 at 15). Most energy efficiency measures not only reduce the total amount of electricity consumed over the course of a year, but also reduce peak demand. Some measures, like a central air conditioning tune-up, have a greater impact on peak demand than installation of a residential CFL, because the CFL most likely is not on during the summer peak period. When ComEd calculated the cost-effectiveness of a measure, it: (i) multiplied energy savings by the avoided energy cost and (ii) multiplied peak demand savings by avoided capacity costs. Because avoided costs can vary substantially by time of day and time of year, these costs are time-differentiated to ensure that ComEd captured the proper value of energy and peak demand reductions over the course of a year. (*Id.*).

ComEd personnel analyzed various programs that failed the TRC test due to the test's exclusion of gas savings. This is most common with programs intended to

address the house-as-a-system and that provide comprehensive sets of measures to improve overall home performance. (ComEd Ex. 6.0 at 16). The limitation on the type of savings included in the Illinois TRC test required ComEd to restrict the Home Energy Performance program to the very small number of all-electric homes. (*Id.*).

#### **g. The Bundling of Measures**

The next step after measure analysis was the program analysis stage, used to develop program elements around those energy efficiency measures passing the TRC test. (ComEd Ex. 2.0 at 16-17). The individual measures were bundled together into a program concept or “type.” Program types include the following: (i) High Yield/Quick Start Programs, which can be implemented in a rather short period of time and can produce immediate kilowatt hour savings (*e.g.*, Residential Lighting and Appliance Recycling); (ii) Medium Yield/Market Building Programs, which require more time to establish in the marketplace and therefore realize kilowatt hour savings over time instead of immediately (*e.g.*, HVAC Diagnostics and Tune-Up Program and Commercial and Industrial New Construction Program); (iii) High Touch/Market Conditioning Programs, which are designed to facilitate and move the market toward an energy efficiency culture but do not achieve immediate kilowatt hour savings (*e.g.*, Building Operation Certification and On-line Audits); and (iv) Emerging Technologies, which represent new, innovative energy efficiency technologies or concepts that ComEd is considering for use in future portfolios (*e.g.*, Smart Grids, White LED light bulbs). ComEd’s Plan is based in part on the premise that including a mixture of the various types of programs in the portfolio ensures it is robust and can deliver the savings goals. (*Id.*).

According to Mr. Jensen, bundling is necessary because program designers build programs around combinations of measures that might appeal to a given market and that can be delivered using similar channels. (ComEd Ex. 6.0 at 18-19). In subsequent steps, ComEd estimates how many of each measure would or could be adopted by program participants and then adds up the energy and demand reduction impacts of these measures. Measures that were not cost-effective were not assigned to a program. (*Id.* at 19).

He opined that the design of program elements and programs was based on an ongoing review of best practice program design and implementation for companies similarly situated to ComEd. (ComEd Ex. 6.0 at 19). According to Mr. Jensen, energy efficiency program “best practice” involves the application of a number of considerations, as well as experience, to each individual case, because regulatory environments differ significantly from state-to-state. In his opinion, there is no way to make simple, broad conclusions about what is best in every case; best practices should be viewed partly as a function of the experience of the program administrator and implementer. For example, best practices for a utility that has been designing and managing programs for two decades may be different from best practices for an organization just entering the field. (*Id.* at 19-20).



## **h. Demand Response**

The statute requires ComEd to “implement cost-effective demand-response measures to reduce peak demand by 0.1% over the prior year for eligible retail customers . . . .” ( 220 ILCS 5/12-103(c)). ComEd witness Mr. Eber testified that ComEd plans to meet its demand response goals during the years 2008-2010 by expanding its current “Nature First” program. (ComEd Ex. 3.0 at 7).

ComEd’s “Nature First” program is an air conditioning cycling program offered to residential customers who own their home and have central AC. (ComEd Ex. 3.0 at 7). At no cost to a customer, ComEd installs a radio-controlled switch to reduce air conditioning usage during times of peak energy use, and, in turn, customers receive annual credits for their participation. (*Id.*). Mr. Eber testified that ComEd plans to expand the current participation levels in order to reach the statutory energy savings goals. Since the inception of the Nature First Program in 1996, the switches have been cycled to curtail energy usage a total of fifteen times – an average of 1.25 calls per year. (*Id.* at 7, 9). Currently, the program has 57,000 participants and a load reduction potential of 89 megawatts (“MW”). (ComEd estimates that in 2008, the total eligible peak metered load is 11,702 MW. Therefore, its statutorily prescribed demand response goal is 11.7 MW (*Id.*). ComEd estimates that each Nature First participant will reduce peak load at the meter by 1.446 kW, and that each participant owns 1.072 switches, because some customers have multiple AC units. To reach the 11.7 MW goal for 2008, ComEd will need to add 8,092 new participants and 8,673 new switches. (*Id.* at 9).

## **i. Portfolio Design**

Portfolio design establishes a three-year plan of programs that satisfies the statutory goals and ComEd’s objectives. (ComEd Ex. 2.0 at 13). Programs can be allocated into different categories, and it is important to include a mixture of all types of programs to develop a robust energy efficiency portfolio that can achieve the statutory goals. This step lays out the program launches over the three-year period, and projects kilowatt-hour savings on an annual basis. (*Id.* at 18). The portfolio, which blends together the program elements under two broad solutions-based programs called ComEd Residential Solutions and ComEd Business Solutions, is designed both to achieve the annual kilowatt-hour savings goals and to build the required infrastructure to facilitate future programs. Packaging the individual program elements under Solutions programs will facilitate a one-stop shopping experience and help avoid customer confusion. (*Id.*). Mr. Brandt also testified that ComEd’s Plan has three additional broad-based or “solution-type” programs centered around Public Sectors, Schools, and Low-income customers. (*Id.* at 19). Although DCEO will implement these programs, they are nonetheless included in ComEd’s overall marketing awareness strategy. The Solutions programs will give customers easy access points to the many programs that will be available to them. (*Id.*).

The portfolio design step used three distinct approaches to increase the likelihood of achieving the savings goals: (i) simulating a variety of different combinations of programs, start dates, ramp-up rates and participation rates to arrive at a phased combination of programs that would maximize savings, while also yielding

program diversity; (ii) bundling the programs into several broad “solutions” offerings; (iii) adding a final layer of costs to represent cross-cutting portfolio administrative requirements such as evaluation and planning, as well as vital program elements that do not directly yield energy savings (e.g., consumer information and education tools and initiatives, and technical assistance and training that would not otherwise fall under a specific energy-saving program). (*Id.* at 29-31).

## **j. The Portfolio of Energy Efficiency Programs**

ComEd’s initial set of energy efficiency programs was designed to build a comprehensive set of programs designed to achieve the kilowatt-hour goal. (ComEd Ex. 2.0 at 23). To accomplish this goal, measures were grouped into logical sets, whether it was different lighting measures for the Residential Lighting program element or a mixture of measures related to apartment dwellers for the Residential Multi-Family All-Electric Sweep program element. ComEd focused on how customers would perceive the program in the marketplace and, in particular, on the ease of participation for customers. (*Id.*)

The portfolio consists of a set of energy efficiency program elements that will roll out over the three-year Plan cycle. (ComEd Ex. 2.0 at 23). There are 12 energy efficiency programs – 7 residential programs and 5 commercial and industrial programs, as well as a demand response program. (*Id.*). This portfolio is designed to meet the statutory energy savings goals.

### **1. The Residential Solutions Program**

The residential programs, collectively named “Residential Solutions,” provide a variety of options for residential customers. (ComEd Ex. 2.0 at 13). The programs rolled out during the first implementation cycle will be technology-based and focus on relatively simple customer actions. They will also emphasize customer education, with the goal of moving residential customers to more comprehensive “whole home” solutions. (*Id.*). The following programs will be available to residential customers: (1) residential lighting CFL incentives; (2) appliance recycling incentives; (3) residential multi-family “all-electric” sweep to implement multiple measures at once in all-electric buildings; (4) residential HVAC diagnostics & tune up; (5) residential new HVAC with quality installation; (6) residential advanced lighting package to promote and capture energy efficiency opportunities available during the design and construction of new homes related to lighting; (7) single family home performance to promote improvements and repairs that will provide energy efficiency; and (8) expansion of the Nature First demand response program. (*Id.* at 8).

Overall, the Residential Lighting program element provides the most kilowatt-hour savings, while at the same time promoting different aspects of energy efficiency lighting. This program will be available to all customers. (ComEd Ex. 2.0 at 12). The Appliance Recycling program element is the second largest residential program in terms of projected kilowatt hour savings, and will be open to all customers who own old working appliances (e.g., refrigerators, freezers, window air conditioning units). (*Id.*). These two programs alone should provide opportunities for all residential customers to participate. (*Id.*). The other five programs, although more narrowly focused, are

targeted at either an important end use (e.g., air conditioning), a critical customer segment (e.g., all-electric customers), or a critical market sector (e.g., new construction). These five programs, along with the two larger programs, create a diverse residential portfolio that provides opportunities for all residential customers to participate, while also minimizing portfolio risk and laying the foundation for future offerings. (*Id.*).

## **2. The Business Solutions Programs**

Mr. Brandt testified that ComEd's Commercial and Industrial programs are grouped under the "Business Solutions" heading and offer a complementary set of energy management options to Commercial and Industrial customers. (ComEd Ex. 2.0 at 23). The initial focus is on individual technology or device incentives, with the ultimate goal of increasing consumer awareness and implementing more comprehensive "whole building" solutions. Although customers can participate in the program through any individual program element, ComEd will also encourage participants to use the available building benchmark services as a means of increasing awareness of the "whole building" solutions. (*Id.*). The following programs are designed for Commercial and Industrial customers: (1) Commercial and Industrial Prescriptive offering incentives for the installation of energy efficiency measures including, but not limited to, T8s, T5s, CFLs, Energy Star Exit Signs (LED & electroluminescent), Lighting Controls (occupancy sensors), Motors (> 5 horsepower) / Variable Speed Drives for HVAC, AC Tune-up, Chillers, Food Service Equipment, and Vending Machine Controllers; (2) Commercial and Industrial Custom to improve the efficiency of unique processes (many industrial-related) within customer operations; (3) Commercial and Industrial Retro-commissioning focusing on building controls and HVAC systems in existing buildings; (4) Commercial and Industrial New Construction, providing design incentives and assistance for above-code efficiency improvements in new non-residential buildings, plus implementation incentives; and (5) Small Commercial and Industrial CFL "Intro Kit," consisting of a direct mail postcard and education piece to the small business customer segment. (*Id.* at 28).

The Commercial and Industrial program mix is driven largely by the Commercial and Industrial Prescriptive Program and the Commercial and Industrial Custom Program. (ComEd Ex. 2.0 at 28). These programs are designed to work in tandem, giving all Commercial and Industrial customers opportunities to receive financial incentives for energy efficiency measures. The Commercial and Industrial Prescriptive Program is more traditional, with its menu of measures and a corresponding rebate or incentive amount. (*Id.*). The Commercial and Industrial Custom Program offers opportunities for energy efficiency measures not found in the Prescriptive Program (e.g., industrial process-related). In this program, customers can solicit proposals for energy efficiency projects to receive a customer incentive. Together, these programs provide opportunities for all Commercial and Industrial customers to participate, whether the program involves a simple motor replacement or an overhaul of an industrial process. The remaining three Commercial and Industrial programs are projected to be smaller in scope and are targeted at important niche segments to establish a future energy efficiency culture. (*Id.*).

## **k. Implementation**

Mr. Brandt averred that ComEd developed a detailed implementation schedule for each program element, including proposed completion dates for the major steps in the process of bringing a program to market. (ComEd Ex. 2.0 at 32). These steps include comprehensive program design, RFP development for third-party administrators, RFP solicitation and award, program development and program launch. The actual implementation process for each program will require much more detail. ComEd will work with the winning bidders in the development of the more detailed program designs and implementation plans, bringing the third-party administrator's expertise into the process before the program design is complete. Together with the third-party administrator, ComEd will finalize the program structure, incentive levels and marketing and recruitment strategies to maximize the success of achieving the program goals. (*Id.*) ComEd and the third-party administrators will develop a detailed roadmap for program roll-out and management, including customer qualification, rebate fulfillment, customer care, information capture and tracking, reporting and quality control processes. (*Id.* at 33).

## **l. Marketing**

Mr. Brandt testified that, as part of ComEd's implementation strategy and continuing after implementation, marketing the portfolio is one of the key elements to the overall success of the portfolio. (ComEd Ex. 2.0 at 33). ComEd's personnel view the initial portfolio at a customer segment level with programs presented together as Residential or Business Solutions rather than as 12 individual programs that will be launched separately to the customers. This approach is intended to allow customers to learn about and make energy management purchasing decisions in a one-stop shopping environment that matches programs to their needs for energy savings and environmental benefits. (*Id.*).

ComEd also proposes to have market transformation and educational programs, in conjunction with market transformation and educational programs offered by DCEO, that are designed to actively promote an energy efficiency culture and the value of ComEd's energy efficiency programs. (ComEd 2.0 at 33). Such programs include the following: (1) Energy Star Information Program, which will provide program participants totalized building energy usage on a monthly basis, and which may be linked to participation in other portfolio programs; and (2) Energy Insights Online Program, which is a web-based energy analysis service that interprets information gathered from the customer's recording meters and converts either monthly or daily information into easy-to-understand graphs and reports that show how much electricity the customer consumes. (*Id.* at 34). This information would be provided to customers free of charge and would no longer be provided as a fee-based service (currently 400 customers subscribe to this service). However, ComEd's customers would be required to pay any meter exchange costs and additional meter rental charges that are necessary to participate in this program. Customer receipt of this service may be linked to participation in other portfolio programs such as energy efficiency educational components.

ComEd will also dedicate funding each year to investigate emerging technologies in the energy efficiency field so that the portfolio is properly designed to evolve over time. (ComEd 2.0 at 34). ComEd will not spend more than 3% of its overall Plan budget on emerging technologies, and explained that the Plan only allocates 1.3% of its budget toward these emerging technologies. (*Id.* at 7).

**m. Portfolio Management and Administration**

ComEd's energy efficiency and demand response portfolio will be administered by ComEd's Marketing & Environmental Program Area ("M&EP"). (ComEd Ex. 2.0 at 35). Mr. Brandt explained that four departments within M&EP will play major roles in implementing the portfolio. The DSM & Energy Efficiency Program Planning Department will be responsible for the planning, RFP development and solicitation, measurement and verification, cost tracking, goal tracking, and portfolio risk assessment functions. The Energy Efficiency Services Department will be in charge of the implementation of all energy efficiency programs, serving as program managers and overseeing management of third-party program administrators. (*Id.*). The Demand Response/Dynamic Pricing Department, which currently implements the Nature First demand response program, will serve as program manager of the demand response component of the portfolio. The Marketing Department will be responsible for both portfolio and program marketing strategy and implementation. To assist with these implementation activities, ComEd will hire additional employees in the Planning, Implementation and Marketing areas. Many other internal ComEd departments will play supporting roles throughout the implementation process, including Large Account Services, Customer Care, Communications and IT. (*Id.*).

ComEd's Plan contains a portfolio of energy efficiency and demand response measures that includes a mix of investments designed to meet the energy savings goals laid out in subsections (b) and (c) of Section 12-103. (See 220 ILCS 5/12-103(b) and (c)). Mr. Brandt testified that each year's goal is incremental to the previous year's goal and thus "stands alone." (ComEd Ex. 2.0 at 4). To calculate the savings goal for each year, ComEd multiplied the projected energy to be delivered for each of the three Plan years by the statutorily mandated percentage reduction. In the Plan years ending May 31, 2009 and May 31, 2010, the incremental percentage reduction was applied to projected energy delivery amounts that already reflected the prior year's percentage reduction. (*Id.*).

Mr. Brandt testified that the Plan demonstrates that (i) it is designed to meet the statutory goals, (ii) it is cost-effective under the TRC test, (iii) it satisfies the spending screens under Section 12-103(d), (iv) it is based on industry best practices, (v) it lays the groundwork for market transformation and provides a foundation for innovation, (vi) it builds in flexibility that allows ComEd to manage risk and respond to changing market conditions, (vii) it is scalable and balanced, and (viii) it is based on collaboration with numerous stakeholders. (ComEd Ex. 2.0, at 9).

In "[d]emonstrat[ing] that its proposed energy efficiency and demand-response measures will achieve the [energy savings] requirements that are identified in subsections (b) and (c)," Section 12-103(f)(1) also requires that the utility take into

account how these requirements are “modified by subsections (d) and (e).” (220 ILCS 5/12-103(f)(1)). Subsection (d) requires that “an electric utility shall reduce the amount of energy efficiency and demand-response measures implemented in any single year by an amount necessary to limit the estimated average increase in the amounts paid by retail customers in connection with electric service due to the cost of those measures to” the statutorily prescribed percentages. (220 ILCS 5/12-103(d)).

#### **n. DCEO’s Role**

Subsection (e) of the statute requires that a utility and the Illinois Department of Commerce and Economic Opportunity (“DCEO”) share the duties of implementing the energy efficiency measures. It provides that “[e]lectric utilities shall implement 75% of the energy efficiency measures approved by the Commission . . . . The remaining 25% of those energy efficiency measures approved by the Commission shall be implemented by [DCEO], and must be designed in conjunction with the utility and the filing process.” (220 ILCS 5/12-103(e)). The evidence established that ComEd and DCEO calculated the split by considering the nature of the programs and allocating the amount under the statutory spending screen to correspond with the statutory percentages. (ComEd Ex. 2.0 at 13-4).

Section 12-103(e) also requires that “[a] minimum of 10% of the entire portfolio of cost-effective energy efficiency measures shall be procured from units of local government, municipal corporations, school districts, and community college districts,” and that DCEO “coordinate the implementation of such measures.” (220 ILCS 5/12-103(e)). The evidence established that ComEd and DCEO have agreed that DCEO would be responsible for presenting and implementing the portfolio of energy efficiency measures targeted at low-income households as required by Section 12-103(f)(4). (ComEd Ex. 2.0 at 14).

ICF International, Inc. performed the TRC test on the combined portfolio of the utility plus DCEO portfolio of programs and the portfolio passes the test. Low-income programs are not subject to this test. (See, DCEO brief at 5).

After coordinating with the utilities, DCEO, ComEd and Ameren agreed that DCEO’s efficiency programs will concern three major areas: the public sector, the low-income sector and “market transformation” (training, education, etc.) programs. To that end, funding was divided based on the 75/25% split of program costs and the utilities and DCEO further agreed that the DCEO share of the annual kilowatt savings targets would be less than 25% with the relevant utility making up the difference. As between ComEd and DCEO, DCEO’s programs will account for approximately 21% (ranging from 18.6%- 21.5%) of the total kilowatt savings during the first three planning years. (DCEO Ex. 2.0 at 7).

This kilowatt savings split allows DCEO to fund less cost effective (such as low-income) or difficult to measure, but necessary, programs. DCEO’s contribution, plus the utility kilowatt savings projections, meet or exceed the statutory requirements as presented in the ComEd, and DCEO testimonies. The evidence established that DCEO’s portion of the portfolio is designed to support the ongoing nature of the

escalating reduction targets (2% reductions by 2015 and continuing thereafter) by incorporating incentive programs with longer term impacts and market transformation programs—each of which are designed to develop a robust energy efficiency services industry necessary to meet the future statutory requirements. (DCEO Ex. 1.1).

DCEO's portion of the portfolio includes approximately 65% of its program funding and measures for the "public sector" which includes units of local government, municipal corporations, school districts, and community college districts. The statute requires that 10% of the total portfolio (40% of DCEO's portion) must be procured from these specific groups. DCEO has included approximately 25% more funding than required in this area in order to more fully serve these public groups and additionally offer these programs to universities and state facilities. DCEO averred that it will thus meet or exceed the Section 12-103(e) requirement. Universities and other state facilities make their purchasing decisions in a similar fashion to municipals, schools and community colleges and to avoid potential confusion if these groups were barred from DCEO's incentive programs targeted at municipals, schools and public community colleges. (DCEO Ex. 1.0 at 17-19).

To conform with 220 ILCS 5/12-103(f)(4), DCEO and the utilities worked together closely on the development of the total portfolio and on the development of a suite of low-income programs Pursuant to Section 12-130(f)(4). Once the decision was made that DCEO would manage the low-income programs, DCEO consulted with DHFS along with other low-income serving organizations such as the Illinois Housing Development Authority, the Center for Neighborhood Technology, etc., as well as the utilities, regarding the design of the low-income programs. (DCEO Ex. 2.0 at 16). Based on information provided by DHFS and the utilities, DCEO estimates that the low income households' share is 5.94% and proposes using 6% as the basis for its funding of low-income programs for the first three year planning period. (DCEO Ex. 1.0 at 28-31). DCEO's budget includes \$3.2 million for its suite of low-income programs which meets the 6% low-income pro-rata share. (See, DCEO Ex. 1.1).

**o. Estimates of Total Amount Paid For Electric Service Associated With the Plan**

ComEd provided the calculations underlying the spending screens described in Section 12-103(d). It estimated the average amount paid per kilowatt-hour for electric service by all retail customers for each of the three twelve-month periods, from June 1, 2006 through May 31, 2009. Those estimates are provided in ComEd Ex. 5.1 and shown in greater detail in ComEd Ex. 5.2. (ComEd Ex. 5.0 at 12). Mr. Crumrine testified that ComEd estimated the amounts paid for supply, transmission, distribution, surcharges and add-on taxes for each of ComEd's fifteen distribution rate classes based on historical revenues or forecasted revenues using current charges from ComEd's tariffs. For each twelve-month period, the sum of each of the fifteen classes' estimated retail revenues was divided by the sum of each of the fifteen classes' estimated energy delivered, using either historic or forecasted energy delivered, as applicable. The result is a single estimated average amount paid per kilowatt-hour by all retail customers for electric service, which are 8.430, 8.739 and 9.263 cents per

kilowatt-hour for the three twelve-month periods ending on May 31<sup>st</sup> of 2007, 2008 and 2009, respectively. (*Id.*).

In Mr. Crumrine's opinion, Section 12-103 requires ComEd to include what customers pay to alternative retail suppliers of electricity, although ComEd does not have access to that information. (ComEd Ex. 5.0 at 13). Therefore, ComEd estimated those amounts, as well as the amount paid for supply by customers taking hourly service from ComEd under Rate BES-H. (*Id.* at 12). For delivery classes, in which, some switching from ComEd's fixed-price, bundled service has, or is expected to, occur, the average amounts paid for supply by such non-residential customers were computed using a weighted average of the amounts paid under (1) the applicable ComEd fixed-price, bundled service tariffs (where available) and (2) a market value approach. Switching levels from ComEd's fixed-price, bundled service (in kilowatt hour) were used to weight the results of both calculations. If fixed-price, bundled service tariffs were unavailable, the market value approach was the sole method used in the computation. (*Id.* at 13-4).

With respect to the market value approach, Mr. Huntowski testified that it is based on the following: (1) actual and forecasted Locational Marginal Prices ("LMP") for the ComEd Zone of PJM, beginning September 2007 and adjusted for each delivery class' annual load shape, which was provided by the NorthBridge Group; (2) forecasted capacity costs adjusted for each delivery class' annual contribution to the peak load, which was also provided by the NorthBridge Group; and (3) estimated ancillary service costs utilizing the current ancillary service costs from the retail supply charge computation for both the CPP Annual Segment and the CPP Blended Segment, as provided in Rider CPP – Competitive Procurement Process. (See, ComEd Ex. 8.0). Such estimated retail supply costs may not include all actual or estimated costs for the components of such supply. The adjustments described above were based on ComEd's Load and Loss Study for the twelve-month period ending October 31, 2006. (ComEd Ex. 5.0 at 14-15). This approach is similar to that used by ComEd during the transition period for calculating market values and transition charges. (*Id.* at 15).

Mr. Huntowski explained that to forecast future electricity prices, his company, The NorthBridge Group, used a combination of forward market information, historical market information, and fundamental models. (ComEd Ex. 8.0 at 3). The price forecast for the first three years is based primarily upon forward market information and then prices are assumed to move toward a long-term equilibrium price over time. The long-term equilibrium price is determined using a model that examines the underlying drivers of electricity prices (e.g., supply and demand, gas prices and carbon dioxide ("CO<sub>2</sub>") prices) to develop a forecast. The path toward this long-term price is developed using both a fundamental model and historical market information. (*Id.*).

He averred that the forward market information underlying this forecast comes from the New York Mercantile Exchange ("NYMEX"), and that for this forecast, NorthBridge utilized market information for the trade date of September 13, 2007. (ComEd Ex. 8.0 at 3). Prices will continue to move up and down on a daily basis, and the price forecast accordingly also changes over time, both due to these movements in forward prices and to changes related to the longer-term drivers of the electricity price.



(*Id.* at 3-4). Because there is a significant amount of uncertainty related to these drivers and future electric prices, actual prices could turn out to be very different than forward prices and forecasts at any point in time. (*Id.* at 4).

Mr. Huntowski further testified that the long-term equilibrium price can be influenced by a number of factors, but the three primary drivers are changes in supply and demand, gas prices, and CO<sub>2</sub> prices. NorthBridge examined each of these drivers over time and used a fundamental model to translate changes in these factors into changes in the electric price. (ComEd Ex. 8.0 at 4).

He also testified that changes in supply and demand are factored into the demand forecast by calculating the joint impact of demand growth and supply changes on the trajectory of energy prices between the market and equilibrium periods based on regression analyses of the historical relationships between PJM energy prices and changes in load. (ComEd Ex. 8.0 at 5). Gas prices are incorporated into the forecast by translating changes in the gas price forecast into changes in electric prices based upon an analysis of the historical relationship between electric and gas forward prices. (*Id.*). CO<sub>2</sub> prices are incorporated into the forecast by forecasting the mix of marginal gas and coal generation and the expected marginal heat rates, and translating these into marginal peak and off-peak CO<sub>2</sub> emission rates. These rates change over time as the mix of coal and gas changes in the region. (*Id.* at 6).

Mr. Huntowski testified that the electricity price forecast developed through the calculations outlined above is shown in ComEd Ex. 8.2. (ComEd Ex. 8.0 at 6). According to Mr. Huntowski's testimony, the forecast is broken down into energy prices and capacity prices for different time periods, both with and without a CO<sub>2</sub> component. (*Id.*). The pricing time periods include an on-peak price (16 hours per day starting at 7:00 a.m. for each weekday), weekend price (16 hours per day for each weekend day), and off-peak price for all other hours. He further noted that the wrap price (a weighted average of the weekend price and the off-peak price) and around-the-clock (an average across all time periods) price are also shown in ComEd Ex. 8.2. (*Id.* at 6).

He stated that the capacity price is sold as a separate product from energy, and is determined periodically based upon an auction process, and that the capacity price in his forecast reflects previous capacity auction prices through May 31, 2010 and a projection of future capacity prices based upon a similar auction process and changes in supply and demand. (ComEd Ex. 8.0 at 7).

**p. The Cost Recovery Mechanism**

ComEd has proposed Rider EDA to recover its incremental costs related to the Plan. (ComEd Ex. 2.0 at 5). Rider EDA is a cost-tracking rider designed to satisfy Section 12-103 of the Act. (*Id.* at 6). Recovery under Rider EDA would include "Incremental Costs" incurred by ComEd or to be recovered on behalf of DCEO in association with "activities and programs that are developed, implemented, or administered by or for the Company, or [DCEO], that are related to energy efficiency and demand response plans approved by the" Commission. (ComEd Ex. 1.0, at Ex. F). The rider will also pass through the costs of such plans approved by the Commission

and implemented by DCEO for ComEd customers. (ComEd Ex. 5.0 at 6). Rider EDA also provides for annual reconciliation proceedings to true-up the actual costs incurred with the revenues obtained through the application of the charge. (*Id.*).

Rider EDA is modeled after Rider ECR (Environmental Cost Recovery Adjustment), which the Commission recently approved in Docket No. 05-0597. (ComEd Ex. 5.0 at 6-7). It provides for cost recovery through the application of a single charge, beginning with the June 2008 billing period. (*Id.* at 7). The EDA charge is stated in cents per kilowatt-hour, and generally will be effective for the twelve monthly billing periods for which it is calculated, but may be revised as needed to better align actual costs with cost recovery. (*Id.* at 6).

ComEd's EDA charge will be determined as follows :

Under the formula contained in Rider EDA, the EDA essentially will be determined for the June 2008 through May 2009 billing periods by taking the difference between the program cost projections . . . and any expected funds (i.e., revenues) from other sources ("Reimbursements of Incremental Costs") for the Plan year and dividing this quantity by the forecasted kilowatt hour energy deliveries ("Projected Energy"). This provides an appropriate mechanism for ComEd to recover its expected net costs for an annual period.

For the period June 2009 through May 2010 and all subsequent twelve-month periods, the EDA will be computed in a similar fashion; however, the charge also will reflect an automatic true-up of the actual net Plan costs and the recoveries from the application of the EDA during the previous twelve-month period (the "Automatic Reconciliation Factor"). Rider EDA also establishes an "Ordered Reconciliation Factor," which will reflect any amounts ordered by the Commission to be refunded or collected from customers as a result of the annual reconciliation process. The EDA charge will be filed with the Commission for informational purposes on May 20th of each year beginning in 2008.

(ComEd Ex. 5.0 at 7). Mr. Crumrine testified that the definition of "Incremental Costs" in Rider EDA generally outlines the costs ComEd seeks to recover through this tariff. (*Id.* at 7-8).

**q. Recovery of Incremental Costs**

ComEd asserts that Rider EDA includes those costs necessary to implement ComEd's and DCEO's programs, including, but not limited to, third-party administrative costs, customer incentives, internal management activities (*e.g.*, marketing, advertising, reporting, risk analysis) and incremental fully-loaded labor costs (*i.e.*, costs related to

the creation of new positions and hiring of new employees who have been retained to work on the energy efficiency portfolio and that are not recovered through other tariffed charges such as delivery charges). (ComEd Ex. 2.0. at 49-50).

Mr. Brandt testified that, to ensure that costs are kept to a minimum, ComEd employs a number of cost management measures, including a competitive bidding process for selecting outside contractors, program-based estimates and billing, reporting requirements to monitor the status of each program, and evaluation of the efforts to manage costs as part of performance reviews. (*Id.* at 51). ComEd will use a competitive bidding process to hire third-party administrators. It will also purchase and implement a cost and program tracking system for the energy efficiency and demand response portfolio to be used by each third-party administrator. (*Id.* at 52).

The projected costs are equal to the spending screen in each Plan year. (ComEd Ex. 2.0 at 50). According to the testimony presented, ComEd's portfolio was designed to achieve the kilowatt hour goal while also attempting to try to lay a foundation for a sustained energy efficiency culture in Illinois, although the spending screen has constrained ComEd's ability to invest in energy efficiency programs. For example, 3% of the annual budget may be budgeted for emerging technologies, although budget limitations have not allowed that to happen. However, the budget is tight in all three years, and ComEd is making every attempt within its portfolio to cost-effectively reach the kilowatt-hour goals, while still moving towards its overall objectives. (*Id.*).

Mr. Eber testified that only the incremental costs from the "Nature First" expansion program to eligible customers will be included under the proposed cost recovery mechanism, Rider EDA. (ComEd Ex. 3.0 at 11). The "Nature First" costs to be recovered under Rider EDA would include both incremental capital investment to purchase and install Nature First switches, and incremental operations and maintenance costs, which include promotional costs, costs related to annual switch maintenance and repair, and annual information technology costs. (*Id.*).

Mr. Crumrine averred that the definition of "Incremental Costs" provides for the amortization of certain costs, such as consultative and legal costs related to the development and Commission approval of plans, over a three-year period. (ComEd Ex. 5.0 at 8). He testified that the definition of "Incremental Costs" also provides for the recovery of the revenue requirement equivalent for capital investments, including a return of and on such investments. (*Id.*). Such ratemaking treatment initially will be limited to direct load control devices and installation labor associated with the proposed expansion of ComEd's existing residential demand response program, Rider AC7. (ComEd Ex. 3.0 at 7). Later, such treatment may be expanded to include other capital investments under future three-year plans filed by ComEd. Similar to other investments in capital assets, this spreads the cost recovery of such long-lived capital assets over their useful lives. (ComEd Ex. 5.0 at 8). In his rebuttal testimony, Mr. Crumrine addressed Staff witness Ms. Pearce's concern that Rider EDA's tariff language was not clear regarding whether the August 28, 21007 limitation of costs date applied only to legal and consultative costs, or, all other incremental costs, as well. Mr. Crumrine testified that ComEd's intent was to limit cost recovery through Rider EDA to all

incremental costs incurred after the effective date of the statute. He stated that ComEd would revise Rider EDA to be consistent with that intention. (ComEd Ex. 11.0).

ComEd witness Mr. Fruehe testified that ComEd's proposed methodology for calculating the revenue requirement equivalent associated with the expansion of the Nature First program is consistent with the approach previously approved by the Commission. (ComEd Ex. 4.0 at 1-2). Calculations of the estimated revenue requirement related to the capital investments necessary for expanding the Nature First program in all three years of ComEd's Plan are shown in ComEd Ex. 4.1. (*Id.* at 4). ComEd calculated the annual revenue requirement by first determining the annual return on investment, which was calculated by applying an after-tax weighted average cost of capital to the average of the beginning-of-year and end-of-year rate base associated with the Nature First capital investments. ComEd used an average rate base in order to appropriately capture the cost of capital associated with the year-to-year change in rate base, and then applied a revenue conversion factor, to account for income taxes, to the return on investment component. The depreciation for each year is added to the return on investment component, and the resulting amount is the annual revenue requirement related to capital investments. (*Id.*). The estimated annual revenue requirement associated with Nature First capital investments is \$82,481 for the twelve months ending May 31, 2009, \$240,270 for the twelve months ending May 31, 2010, and \$379,692 for the twelve months ending May 31, 2011. (*Id.* at 4).

He also stated that the rate base for the proposed Nature First expansion was determined by calculating the corresponding amount of capital investment associated with the number of control switches to be installed to meet the statutory goals, and adding that amount to the previous year's total to determine gross investment. (ComEd Ex. 4.0 at 4-5). ComEd then calculated book and tax depreciation accordingly, and subtracted accumulated deferred income taxes and accumulated depreciation from the gross investment to find the year-end base rate. (*Id.* at 5). Mr. Fruehe noted that the actual investment may differ from these estimates and will be reflected properly in the annual reconciliation. In order to determine the weighted average cost of capital, ComEd used the economic parameters approved by the Commission in its most recent rate case (ICC Docket No. 05-0597). If, however, during the period the estimated revenue requirement is in place, the Commission approved a different rate of return, then, ComEd will use a weighted-average rate of return (by months in effect) in the reconciliation calculation. In the subsequent year, ComEd would use the new rate of return to determine the estimated revenue requirement for that year. (*Id.*).

The only revenues ComEd currently expects to reflect in the "Reimbursement of Incremental Costs" are those derived from PJM for the incremental expansion of demand response capabilities under Rider AC7.<sup>2</sup> (ComEd Ex. 5.0 at 9). In the future, the EDA charge will reflect revenues that ComEd obtains from any sources other than the EDA charge itself that are directly related to the approved programs. (ComEd Ex.

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<sup>2</sup> It appears, therefore, that the concern espoused by CUB witness Mr. Thomas regarding using these payments to help offset the costs involved in administration of ComEd's "Nature First" program have been addressed and fully resolved. (See, CUB Ex. 1.0 at 8).

5.0 at 9). Rider EDA addresses the recovery of uncollectibles associated with the EDA charge in the same manner as has been previously approved by the Commission for the recovery of uncollectibles associated with supply charges. (ComEd Ex. 5.0 at 9-10).

Finally, Rider EDA provides for an annual Commission review, and it contains measures to ensure that ComEd will not double-recover costs. (ComEd Ex. 5.0 at 10). Rider EDA provides for the filing of an annual report by August 31<sup>st</sup> of each year beginning in 2009. This report will include testimony regarding the reasonableness and prudence of ComEd's costs, an internal audit verified by an officer of ComEd and a reconciliation statement. Pursuant to Section 12-103(e) of the Act, the Commission will initiate a review to reconcile amounts collected with actual costs prudently incurred after such report is filed. In addition, ComEd's internal audit process, the result of which will be included in ComEd's annual report, was developed with input from Commission Staff and examines whether costs are being recovered under tariffs other than Rider EDA. (*Id.*).

#### **IV. The Contested Issues**

##### **a. Miscellaneous Procedural Issues**

##### **1. Future DCEO Submissions**

Staff argues, essentially, that much confusion was created, unnecessarily, when DCEO filed its own petition, rather than making joint filings with the two utilities. Staff acknowledges that this situation was likely an inadvertent oversight resulting from the newness and complexity of Section 12-103 of the Act and DCEO's completely new obligations under that statute. It recommends that the Commission specifically direct DCEO to make joint filings, in the future, with the utilities, in connection with future energy efficiency and demand response plans. (Staff brief at 11-12).

#### **Analysis and Conclusions**

Staff's contention is reasonable and it is hereby approved. We do note, however, that the new statute created almost impossible time-frames, creating little time for in-depth analysis of the finer points of civil procedure. However, DCEO has statutory obligations pursuant to the new statute, which logically, makes it a joint petitioner. DCEO is directed, in the future, to make joint filings with the corresponding utilities, with the understanding that DCEO's flexibility to administer, and offer a consistent set of efficiency programs statewide, shall not be compromised by this approach.

##### **2. Future Commission Review of ComEd's Plan to Determine Whether it Is Meeting Energy Savings Goals**

ComEd asks this Commission to set a schedule for future determinations as to whether it is meeting the statutory energy efficiency goals. Specifically, it requests that this Commission set a schedule for Commission review during the second and third year of its three-year plan. ComEd avers that it is possible to construe Sections 103(i) and (j), in combination with Section 103(f)(7), to require Commission review of its plan, for purposes of meeting the statutory goals (as opposed to a prudence review) during the second and third year of its plan. (ComEd brief at 36-7).

Staff does not dispute that Section 103(f)(7) requires Commission review of ComEd's plan to determine whether it meets the statutory requisites. Rather, Staff reminds this Commission that Section 103(f)(7) of the Act is not inextricably connected to Sections 12-103(i) and (j) of the Act. Section 103(f)(7) requires a utility to provide for an "annual independent evaluation of the performance of the cost-effectiveness of a utility's portfolio of measures," whereas Commission review pursuant to Section 103(i), according to Staff, need not and should not be based solely upon the analysis of the independent evaluation performed in accordance with Section 103(f)(7). (Staff brief at 52; 220 ILCS 5/12-103(f)(7), (i) and (j)). Staff points out that when there is Commission review of plan performance, the evaluator may be called upon to provide evidence, but, there should be no presumption that a utility's evaluator will be the only entity that is competent to provide evidence about whether a utility has met the statutory efficiency standards. (Staff brief at 43).

### **Analysis and Conclusions**

The dates are as follows for commencement of Commission dockets reviewing whether ComEd achieved the energy efficiency goal for the year commencing June 1, 2009 and ending May 31, 2010, and for the year commencing June 1, 23010 and ending May 31, 2011, are September 1, 2010, and September 1, 2011, respectively. The Commission believes that initiating proceedings on these dates is appropriate to ensure compliance with the goals set forth in the Act. On or before each of these dates, Staff is directed to provide with the Commission with draft orders that will initiate docketed proceedings to review the energy efficiency goals set forth in the statute.

However, Staff's concerns are duly noted. The Commission reviews of ComEd's plan to determine compliance with the energy efficiency goals is separate and apart from the independent evaluation required by Section 103(f)(7) of the statute.

#### **b. Plan Implementation Issues**

##### **1. Increasing the Statutorily-Imposed Energy Efficiency and Demand Response Goals**

The Act requires the utilities and DCEO to meet certain energy efficiency and demand response goals. (220 ILCS 5/12-103(b) and (c)). The Consumer Powerline urges this Commission to significantly increase the energy efficiency and demand response goals imposed on the utilities by statute. It maintains that much more could be achieved. It points out that the state of New York recently announced a goal of 15 percent efficiency by 2015. (CPLN brief at 19; 23).

### **Analysis and Conclusions**

We agree with the Consumer Powerline that much needs to be done in Illinois in order to reduce energy consumption. However, we decline to increase that which was imposed by statute. We note that this is the first time that utilities and DCEO are mandated, by state law, to have energy efficiency and demand response plans. While New York's goals are impressively aggressive, there is no showing that the state of New

York just started requiring electric utilities to have energy efficiency and demand response programs, which is the case here.

## **2. Application of the Total Resource Cost Test at the Portfolio Level**

The statute requires that the utilities' and DCEO's energy efficiency and demand response measures must satisfy the total resource costs test, ("the TRC test) which is defined in the Illinois Power Act at 20 ILCS 3855/1-10. (220 ILCS 5/12-103(a)). The City of Chicago and DCEO contend that the Commission should require calculation of this test at the portfolio level, as opposed to the level of individual measures. Thus, program elements can be added to a portfolio, as long as the overall portfolio has a TRC that is greater than one. (See, e.g., DCEO Ex. 1.0 at 7). DCEO asserts that, even though it endeavored to make all of its programs pass the TRC test, this does not mean that DCEO is of the opinion that individual programs or measures must pass this test.

No party contested this contention.

## **Analysis and Conclusions**

Calculation of the TRC test at the portfolio level provides utilities with greater flexibility to ensure that measures with less short-term energy savings value, but greater value over several years, will be included in any overall portfolio of measures and programs. This contention is reasonable and it is hereby approved. However, the utilities and DCEO are not precluded from applying the TRC test at the "measure" or program level, if they so choose.

## **3. "Annualization" of Energy Savings**

ComEd seeks Commission approval of its request to "annualize" the energy savings in its energy-savings measures. "Annualization," in effect, looks to the total annual savings of a measure. It does not take into account when that measure was purchased or installed. This means, in effect, that if a ComEd program subsidizes the purchase of an energy-efficient CFL light bulb, ComEd would receive credit for the total annual energy savings that this light bulb would provide, irrespective of whether this purchase or installation occurred in January or December of any given year. According to ComEd's witness Mr. Hall, "annualization" is commonly done in other states that have energy efficiency programs. (ComEd Ex. 13.0 at 3).

DCEO contends that this request should be approved. Its witness Mr. Feipel opined that, if annualization of energy savings is not allowed, most of what will be implemented will be only low-cost, short-term measures. (DCEO Ex. 2.0 at 9).

Staff witness Mr. Zuraski noted that allowing annualization of energy savings "at least does not exacerbate the Act's built-in bias for measures and programs that promise instant gratification." (Staff Ex. 1.0 at 16). Staff contends that it would be patently unreasonable and contrary to the overall goal of the statute to treat total savings from identical measures differently, based solely on the date of implementation within each plan year. (Staff brief at 23).

No party has opposed this proposal.

## **Analysis and Conclusions**

“Annualization” is a reasonable approach and it is hereby adopted.

### **4. Updating the Spending Limits**

ComEd calculated the spending amounts prescribed by Section 12-103(d)(1) through (d)(3) in dollars per plan year. (ComEd Ex. 5.0 at 16). This is reflected in ComEd Ex. 5.3, which shows that the estimated spending screens for each Plan year are \$39.4 million, \$81.6 million, and \$126.7 million, respectively, or a total of \$247.6 million for the three Plan years. (*Id.*). Mr. Brandt averred that after the Commission approves ComEd’s energy efficiency and demand response plan, ComEd will not adjust its spending screens each year because the screens were set during the planning stages, and ComEd relied on those numbers in assembling its three-year portfolio. (ComEd Ex. 2.0 at 50).

Staff witness Mr. Zuraski testified, however, that there are legitimate reasons for updating the spending limits at various points during the life of the three-year plan, as the spending limits are based on projections of future usage and future costs, which are both subject to uncertainty. Future power supply costs and/or normalized usage could drop significantly. Either one of these factors would be, in his opinion, an excellent reason to reduce spending. Conversely, future power supply costs and/or normalized usage could increase significantly. These factors, also, would be excellent reasons to increase the rate of spending on energy efficiency and demand response programs. (Staff Ex. 1.0 at 10-11; Staff brief at 27-29).

Staff also contends that updating spending limits on an annual basis is required by the statute. Staff cites Section 12-103(d) of the Act, which provides that an electric utility shall reduce the measures implemented in “any single year” by an amount necessary to limit the estimated average increase in the amounts paid per kilowatt-hour by customers during certain specified time frames. Staff avers that the statute unmistakably refers to amounts paid in particular years for purposes of calculating the spending screens. Thus, the obligation to reduce the implementation of measures applies to “any single year.” (Staff brief at 29-30; 220 ILCS 5/12-103(d)).

## **Analysis and Conclusions**

The Commission agrees with Staff. The statute’s plain language is that:

[A]n electric utility shall reduce the amount of energy efficiency and demand-response measures implemented in any single year by an amount necessary to limit the estimated average increase in the amounts paid by retail customers in connection with electric service due to the cost of those measures to:

(1) in 2008, no more than 0.5% of the amount paid per kilowatthour by those customers during the year ending May 31, 2007;



(2) in 2009, the greater of an additional 0.5% of the amount paid per kilowatthour by those customers during the year ending May 31, 2007, or 1% of the amount paid per kilowatthour by those customers during the year ending May 31, 2007;

(3) in 2010, the greater of an additional 0.5% of the amount paid per kilowatthour by those customers during the year ending May 31, 2009, or 1.5% of the amount paid per kilowatthour by those customers during the year ending May 31, 2007;

(4) In 2011, the greater of an additional 0.5% of the amount paid per kilowatthour by those customers during the year ending May 31, 2010 or 2% of the amount paid per kilowatthour by those customers during the year ending May 31, 2007; and

(5) thereafter, the amount of energy efficiency and demand-response measures implemented for any single year shall be reduced by an amount necessary to limit the estimated average net increase due to the cost of these measures included in the amounts paid by eligible retail customers in connection with electric service to no more than the greater of 2.015% of the amount paid per kilowatthour by those customers during the year ending May 31, 2007, or the incremental amount per kilowatthour paid for these measures in 2011.

(220 ILCS 5/12-103(d)(1)-(5)). Irrespective of the fact that a utility's plan may be a comprehensive, three-year plan, as Staff points out, the statutory spending limits are based on projections, which, necessarily, need to be reexamined annually, as they can change from year to year. The previous year's figures, upon which, those calculations must be made, cannot be known years before the dates enunciated in the statute have occurred. ComEd is directed to recalculate its projections in accordance with this portion of the statute on an annual basis.

## **5. The Advisory Committee**

ComEd witness Mr. Brandt explained that although Section 12-103 of the Public Utilities Act makes no mention of a stakeholder advisory group, ComEd is committed to establishing a stakeholder process, to provide opportunities to review the Utility's progress towards achieving the required energy efficiency and demand response goals. (ComEd Exs. 9.0 at 12, 2.0 at 36) However, the utility seeks to retain sufficient flexibility to reallocate funds across program elements, including the ability to modify, discontinue and add program elements within approved programs as dictated by additional market research and actual implementation experience as part of its risk management strategy. (ComEd Ex. 2.0 at 19). Stakeholders would include ComEd, BOMA; Center for Neighborhood Technology; CUB; the City; Environment Illinois; ELPC; the IIEC; Metropolitan Mayor's Caucus; Midwest Energy Efficiency Alliance ("MEEA"); the AG; the NRDC; DCEO, Staff of the Illinois Commerce Commission and representation from

a variety of interests, including residential consumers, business consumers, environmental and energy advocacy organizations, trades and local government. (*Id.* at 10-12, 36).

Mr. Brandt stated that ComEd foresees discussing the following matters with the stakeholder advisory group: (1) reallocating funds among program elements within the Residential and Business Solutions programs (excluding those elements managed by DCEO) to ensure ComEd's ability to achieve its goals, where the change in budget for any specific program element is greater than 20%; (2) discontinuing approved program elements within the Residential and Business Solutions programs; (3) adding new program elements with the Residential and Business Solutions programs, as long as those elements pass the TRC test; and (4) dismissing ComEd's independent evaluator, under the terms of the contracts signed with that evaluator, and the hiring of a new evaluator. (*Id.* at 38).

Mr. Brandt explained that the process of proceeding with final and detailed program designs and implementation plans will include further discussions with stakeholders, customer groups, and trade allies. (*Id.*). ComEd plans to notify the stakeholder group if it revises the proposed budget for any specific program element within the Residential or Business Solutions programs by more than 20%. (*Id.* at 39). Mr. Brandt described an ongoing stakeholder process facilitated by an independent, third-party organization or individual accepted by all parties. (*Id.* at 36). He also acknowledged the value of a program to track and report the results of the programs within the portfolio and explained that ComEd “fully intends to implement a program tracking system that allows for regular reporting to those involved in the collaborative process.” (ComEd Ex. 9.0 at 13). Mr. Brandt testified that the frequency and nature of the reporting should be worked out by the stakeholder advisory group itself, and costs associated with producing the reports would need to be balanced with the value received from the reports. (*Id.*).

Staff witness Mr. Zuraski testified that ComEd should be responsible for implementing the plan approved by the Commission, including but not limited to providing an independent evaluation, and that the stakeholder advisory aspect of the plan should be left to ComEd's discretion. (Staff Ex. 1.0 at 26). If, however, the Commission were to order the utility to include a stakeholder collaborative group as part of its implementation of the plan, the organizations eligible to be a part of the stakeholder group aside from the DCEO, the ICC Staff, and the Attorney General, should be identified. (*Id.*). Also, the degree to which the participants in this group will be “decision makers” or merely advisors to ComEd must be established. Lastly, Mr. Zuraski stated if the participants were “decision makers,” the number of votes each stakeholder would be able to cast must be determined. (*Id.*).

NRDC witness Mr. Henderson recommended that the Commission authorize a Demand-Side Stakeholder Advisory Process to include all three portfolio administrators. (NRDC Ex. 1.0 at 5). Stakeholders should be given notice and opportunity to comment on key issues that could impact portfolio costs or savings. (*Id.* at 5-6). Mr. Henderson

recommended that the Commission identify and define a few broad cost categories for energy efficiency programs, and once those categories are defined, Mr. Henderson urges the Commission to monitor administrative costs to ensure the program dollars are spent to maximize benefits from the demand-side portfolio and are not used to cross-subsidize other activities. (*Id.* at 11-12). Mr. Henderson also supports administrator flexibility to respond to market conditions, but recommends that the Commission provide program administrators with clear guidelines about what program and portfolio changes are appropriate without seeking Commission approval, and what changes require either notice or comment to the Stakeholder Advisory Process or the Commission. (*Id.* at 8-9).

ELPC witness Mr. Crandall suggested a stakeholder advisory group and procedure similar to the one proposed by the NRDC. (ELPC Ex. 1.0 at 4). City of Chicago witness Mr. Abolt also suggested the creation of a stakeholder advisory group and process similar to that suggested by the NRDC. (City Ex. 1.0 at 5).

AG witness Mr. Mosenthal agreed that a stakeholder advisory group is an appropriate mechanism to work out details of the plan, but stated that the details of the stakeholder group's structure, parties, and roles needed to be defined. (AG Ex. 1.0 at 7). He explained that the Illinois stakeholder group should meet frequently to review and discuss program design details as well as regular process or status reports, implementation issues and approaches, and performance results. He also argued that it would be important for the group to be independent and facilitated by a neutral party. (*Id.* at 8). Finally, Mr. Mosenthal indicated that the stakeholder advisory group's decisions should be binding on the participants, stating that if consensus could not be reached, stakeholders should be free to seek resolution of their disagreements at the Commission or in another forum. (*Id.*).

BOMA argues that all interested parties should have the option of participating in the collaborative process and that the committee should have consensus decision making authority. (BOMA brief at 19). BOMA also maintains that no party participating in the collaborative relinquishes its right to litigate. (*Id.* at 19). Lastly, BOMA believes that Staff should participate in the process in some capacity. (*Id.* at 20).

## **Analysis and Conclusions**

All parties involved, with the possible exception of Staff, maintain that a Stakeholder Advisory Committee is essential to the success of the Plan. This Commission agrees with ComEd that it should establish a stakeholder process to review ComEd's progress towards achieving the required energy efficiency and demand response goals and to continue strengthening the portfolio. The Stakeholder group's responsibilities include, but are not limited to: reviewing final program designs; establishing agreed-upon performance metrics for measuring portfolio and program performance; reviewing Plan progress against metrics and against statutory goals; reviewing program additions or discontinuations; reviewing new proposed programs for the next program cycle; and reviewing program budget shifts between programs where the change is more than 20%.

Mr. Brandt recognized that the committee should include the Utility, DCEO, Staff, the Attorney General, BOMA and CUB and representation from a variety of interests, including residential consumers, business consumers, environmental and energy advocacy organizations, trades and local government. The HVAC trade was not mentioned by any of the testifying witnesses, but is also an interested party and should be included in the collaborative to deal with programs regarding air conditioning which might include the recycling of old window air conditioning units, tune ups of central air systems, and a program to make sure that proper air conditioning units are installed. Also, a representative from the ARES (alternative retail electric supplier) community should be included.

This Commission does not believe that a statewide committee for both Utilities would be prudent. The differences in the service territories, such as labor costs, housing structure, population density and topography, may prove to make such coordination ill advised. The Utilities should coordinate their efforts as much as possible, but this Commission will not require it.

The Commission agrees with NRDC witness Mr. Henderson that the Utility should not be able to hire and fire the evaluation and measurement contractor. Mr. Henderson suggests that such an act would require approval from the advisory committee. Instead, the Commission agrees with Staff that pursuant to statute the Commission should choose or approve the independent evaluator.

How often the advisory committee meets and other procedural matters such as notice and comment for committee reviews of key issues should be determined by the Utility and members of the committee. The advisory committee **shall** report to the Commission. The report may be prepared by the Stakeholder Group facilitator, and may include observations from participants on how well the process worked, how it might be improved, and a list of recommendations from Stakeholder Group members on program and portfolio performance, with a response from the Utility to the recommendations.

The Stakeholder Group should coordinate its efforts with the Staff led Workshops required by this Order.

### **Flexibility**

Both DCEO and ComEd seek Commission approval of their request to be allowed to revise any and all aspects of their programs. (See, e.g., DCEO brief at 14). ComEd asserts that it must retain the ability to modify programs during the three-year Plan cycle, as the results of its programs become realized. (ComEd Ex. 2.0 at 36). Ongoing program modifications are a key to a well-designed portfolio and will be critical if the kilowatt-hour goal is to be achieved. A measure may lose its cost-effectiveness over time or participation rates for a certain measure could turn out lower than expected. It is impossible to foresee every contingency that might arise in the future. (*Id.*). Therefore, to ensure that ComEd has the ability to respond to such challenges following approval of the plan, it must retain sufficient flexibility to reallocate funds across program elements, including the ability to modify, discontinue and add program

elements within approved programs based on subsequent market research and actual implementation experience. (*Id.*).

As Mr. Brandt testified, although ComEd has done its best to model projections of program participation, costs, and other impacts, it cannot predict with certainty what will happen in the marketplace when the programs are launched. (*Id.* at 39). For example, whereas ComEd has modeled the Commercial and Industrial Retro-commissioning Program and New Construction Program as rather small in terms of kilowatt savings, some stakeholders believe these types of programs could become the cornerstone of the portfolio. If that turns out to be the case, ComEd would not want to prevent these programs from growing beyond the initial estimates. Rather, funding from other programs might be made available to these programs. (*Id.*). ComEd will need to have the flexibility necessary to manage the costs and the program and customer mix to determine when funds are reallocated to properly manage the portfolio. (*Id.*).

Staff witness Mr. Zuraski explained that he “appreciate[d] how granting the requested flexibility would aid the Company in cost-effectively achieving the level of energy savings that it projects to be able to save.” (Staff Ex. 1.0, at 9). He cautioned, however, that if ComEd later modified or discontinued certain program elements, this could reduce the opportunities available to some rate classes. He noted that if the Commission were especially concerned about the plan portfolio including a “diverse cross-section of opportunities for customers of all rate classes,” the Commission might not feel comfortable delegating this authority to the utility. (*Id.*).

AG witness Mr. Mosenthal recommended that the Commission allow the program administrators to retain flexibility regarding implementation and design details. (AG Ex. 1.0 at 8). In his opinion, the Commission’s role should be to verify and ensure that the goals of the legislation are met, and that, with agreement of the stakeholder advisory group, the program administrators should have the ability to modify programs over time based on market conditions and feedback on the effectiveness of their implementation efforts. (*Id.*).

ELPC witness Mr. Crandall agreed that portfolio managers should have the flexibility to reallocate funds among programs as needed. (ELPC Ex. 1.0 at 5). He asserted, however, that “it is important that the relative share of funds assigned to specific sectors . . . remain approximately proportionate to the proposed levels in the plan.” (*Id.*).

NRDC witness Mr. Henderson also “support[s] administrator flexibility to respond to market conditions within certain guidelines.” (NRDC Ex. 1.0 at 8). He contends, however, that such flexibility should not be unlimited. (*Id.*). He therefore stated that the Commission “should provide administrators clear guidelines about what program and portfolio charges are appropriate without seeking Commission approval, and what changes require either notice or comment to the Advisory Stakeholder Process or the Commission.” (*Id.* at 8-9).

ComEd’s witness Mr. Brandt noted that no party opposes the concept of flexibility, and that ComEd is not proposing unlimited flexibility (ComEd Ex. 9.0 at 18-20). Mr. Brandt explained that ComEd believes flexibility is a necessary requirement to

achieve success in the portfolio, but explained that it does not view this as “carte blanche” to make wholesale changes to the portfolio. (*Id.* at 19). Mr. Brandt testified that all changes to the portfolio would be subjected to a rigorous analysis, including application of the TRC test. (*Id.*). He explained that, “ComEd fully expects to socialize all changes with the collaborative, and, in fact, envisions that some of the initial work of the collaborative would be to develop a process on how and when changes to program elements occur.” (*Id.* at 19-20). ComEd is, however, opposed to “Mr. Mosenthal’s collaborative proposal, which requires collaborative agreement prior to modification.” Mr. Brandt further stated that it is ComEd’s position that any change made to any program element should be looked at in terms of its effect on the overall portfolio, and modifying one program must not compromise the overall objectives of the portfolio. (*Id.* at 20).

### **Analysis and Conclusions**

Regarding the measure of flexibility that portfolio managers should have, this Commission agrees with the ComEd and ELPC witness Mr. Crandall that portfolio managers should have the flexibility to reallocate funds among programs. All testifying witnesses agreed that administrator flexibility is necessary to properly manage the portfolio. The only issue is whether ComEd or DCEO will have unlimited flexibility. Mr. Brandt testified that all changes to the Portfolio would be subjected to a rigorous analysis. The Commission agrees with Mr. Crandall’s suggestion that the relative share of funds assigned to specific sectors should remain approximately proportionate to the proposed levels in the plan. However, the proposed changes would not require collaborative agreement prior to modification or discontinuation. Again, because ComEd and DCEO bear the burden under the statute, it is not feasible to grant the collaborative veto power.

## **6. New Building and Appliance Standards**

Section 12-103(f)(2) of the Act requires a utility to present specific proposals to implement new building and appliance standards that have been placed into effect. ComEd construes the statute to require it only to implement Illinois law regarding buildings and appliances. ComEd asserts that it is not aware of any new State standards applicable to appliances, and no one has contended any such new standards exist. Also, ComEd contends, essentially, that the statute only requires implementation of new standards regarding buildings. Specifically, ComEd asserts that, the programs offered by DCEO address these requirements, because, at this time, the only new Illinois building standards, of which, ComEd is aware, are applicable to school buildings, and DCEO’s programs address that market segment. (See ComEd Exs. 9.0 at 6; 2.0 at 10).

### **Analysis and Conclusions**

The statute requires utilities to have energy efficiency programs that “implement new building and appliance standards that have been placed into effect.” (220 ILCS 5/12-103(f)(2)). The plain meaning of this language is that the programs must implement standards regarding new buildings, (as opposed to the standards for buildings that are not new). It is common knowledge that building codes, and like

building standards, have different requisites for new construction than for older, pre-existing buildings. (See, e.g., *Leavitt v. Farwell Tower Partnership*, 252 Ill App. 3d 260, 266, 625 N.E.2d 48 (1<sup>st</sup> Dist. 1993)).

According to ComEd, there are no Illinois appliance standards. It concludes that therefore, it is not required to implement any legal standards regarding appliances. However, federal appliance standards exist, they are the federal Energy Star appliance standards. (See, e.g., 10 C.F.R. 430). Those standards have been in existence for several years. The statutory language above does not refer to *state* standards or Illinois standards, it requires implementation of standards, which, includes *any* standard. Therefore, we conclude that the phrase “appliance standards that have been placed into effect” refers to the federal Energy Star standards and any other laws that may be enacted in the future (after enactment of those laws). We further conclude that ComEd and DCEO are required by the statute to have programs that implement both new building standards, and, any existing appliance standards.

DCEO has presented ample evidence establishing that it has programs that implement these standards. We additionally note that ComEd’s “Residential Solutions” program, which includes such items as the recycling of older, non-energy-efficient appliances and residential HVAC diagnostic and tune-up, as well as residential all-electric sweeps to implement multiple measures in all-electric buildings, addresses new construction standards and existing appliance standards. (See, ComEd Ex. 2.0 at 13). Also, ComEd’s “Business Solutions” program, which includes such items as retro-commissioning and incentives for above-code efficiency improvements in the new construction design of non-residential buildings, addresses both new construction standards and existing appliance standards. (See, e.g., ComEd. Ex. 2.0 at 22-28). We therefore conclude that ComEd is implementing the statutory requisites regarding new building construction, as well as existing appliance standards.

## **7. Single-Charge Cost Recovery from all Customers**

ComEd seeks Commission authorization to collect its prudently and reasonably incurred incremental costs through a single cent per kilowatt-hour charge. This charge would be applied uniformly to all customer classes. (See, e.g., ComEd brief at 21, ComEd Ex. 11.0 at 1).

The IIEC and BOMA, however, contend that large commercial customers pay about double the cost of the programs directed at them. This, they contend, is not in accord with traditional ratemaking principles and it is not fair.

The IIEC proposes that there should be separate cost-recovery mechanisms for three different customer classes, which are, according to the IIEC, 1) residential, 2) small commercial and industrial and 3) large commercial and industrial. (IIEC brief at 4, 11). Pursuant to the IIEC’s proposal, cost recovery would not be “fixed” throughout the course of a plan. Rather, to the extent that ComEd shifts its programs focus over time, the charges could be modified in accordance with ComEd’s updated costs.

The IIEC points out that ComEd’s programs and measures recognize the differences in electricity usage that ComEd’s many types of customers have. To more

properly allocate the costs amongst the three broad ranges of classes, the IIEC proposes a cost-recovery mechanism that reflects these differences. It points out that its witnesses were able to determine energy consumption levels for each of the three “classes” it has identified, the class-specific costs of the Plan’s distinctive programs for the classes, and an allocated share of overall program administrative costs. (*Id.* at 5-8).

BOMA’s witness Mr. Zarumba also proposed a cost-recovery mechanism that differentiates customers by various distribution delivery classes. He proposes that ComEd should be required to impose a different volumetric rate (cents per kilowatt-hour) upon 15 different distribution delivery classes. (See, BOMA Ex. 1.0 at 10; BOMA brief at 12).

Both BOMA and the IIEC maintain that distribution of the energy efficiency and demand response charge imposed by statute in the manner proffered by ComEd violates Section 9-241 of the Act, which provides that when imposing rates and charges, utilities cannot grant a preference or advantage or maintain any unreasonable differences amongst customer classes. (220 ILCS 5/9-241). BOMA asserts that therefore, ComEd’s proposed approach to cost recovery is illegal because it ignores that each distribution classification has a different average cost per kilowatt-hour, to which, the annual percentage should be applied. (BOMA brief at 10, 11). BOMA also cites Section 12-103(d) of the Act and contends that it requires utilities to limit increases in the energy efficiency surcharge. According to BOMA, Section 12-103(d) of the energy efficiency and demand response statute is further evidence that 15 different rate classes should be imposed upon the energy efficiency and demand response charge. (*Id.* at 9).

Similar to the arguments made by the IIEC and BOMA, Constellation New Energy contends that ComEd’s proposal to impose a uniform charge is unfair because commercial customers receive no direct benefit from this program. Constellation New Energy maintains that the recovery of costs from all customers, regardless of what benefits they may receive, subsidizes other customers. Constellation New Energy avers that the customers of alternative electric suppliers could pay for demand response or energy efficiency twice, once when they procure something on their own, or, when they participate in a demand response program offered by an alternative supplier, and once again pursuant to the charge imposed by the utility. (CNE brief at 3-4).

ComEd cites the statutory statement of policy, which is, essentially, to reduce direct and indirect costs to consumers by decreasing the environmental impact of electric generation and by avoiding or delaying the need for new generation, transmission and distribution infrastructure. (ComEd brief at 22; 220 ILCS 5/12-103(a)). ComEd asserts that the statutory policy makes it clear that the measures to be implemented pursuant to Section 12-103 benefit society in general. Also, Sections 12-103(b) and (c) set firm energy efficiency and demand response goals. Further, Section 12-103(f)(5) requires a utility to have a portfolio of energy efficiency measures that “represent a diverse cross-section of opportunities for customers of all rate classes to participate.” (ComEd brief at 22-23).



ComEd reasons that therefore, it is irrelevant, from a ratemaking perspective, whether more program dollars are ultimately spent on programs for one group or class of customers. This is true, ComEd asserts, because the statutory goals must be met regardless of customer groups or classes, from which, the energy savings are obtained, or where the program dollars are actually spent. (*Id.*). ComEd also argues that, in this context, no customer is really a cost-causer. It concludes that because the costs will be incurred for the benefit of all customers, it is reasonable to hold all customers jointly liable for all of the costs of complying with the statute. (*Id.* at 23-24).

Staff agrees with ComEd. In the opinion of Staff witness Mr. Lazare, however, all persons and entities receive the same benefits from decreased energy consumption, which are, less need to build new electric generation facilities, less use of expensive “peak” electricity, and cleaner air for all. (Staff. Ex. 3.0 at 5-6).

### **Analysis and Conclusions**

While we acknowledge that all consumers will benefit equally from imposition of the statute, as it attempts to confer cleaner air, less peak demand, and less of a need for new generation and other costs in an equal manner, the IIEC’s approach is more in conformance with traditional rate-making principles that are enunciated in the Public Utilities Act. Specifically, Section 9-241 provides, in pertinent part that:

No public utility shall, as to rates or other charges, services, facilities or in other respect, make or grant any preference or advantage to any corporation or person or subject to any prejudice or disadvantage. No public utility shall establish or maintain any unreasonable differences as to rates or other charges, services, facilities, or in any other respect, either as between localities or as between classes of service.

(220 ILCS 5/9-241). We further note that IIEC’s approach is also not unduly complicated. Additionally, it only re-distributes the funds that have been collected; it does not reduce the amount of funds that a utility will be able to use or restrict how a utility deploys those funds. This approach is reasonable and it should be adopted. The costs of the low-income programs, however, are to be equally shared by all customer classes. ComEd is directed to file its compliance tariffs within 30 days from the date of this Order.

However, BOMA’s construction of Section 12-103(d) of the Act is erroneous. It does limit the amount of energy efficiency and demand response measures, as BOMA contends, but, it does so in a uniform manner to all. It is a “cap.” For example, with regard to the first year of energy efficiency and demand response, it provides:

Notwithstanding the requirements of subsections (b) and (c) of this Section, an electric utility shall reduce the amount of energy efficiency and demand-response measures implemented in any single year by an amount necessary to limit the estimated average increases in the amounts paid by retail customers in connection with electric service due to the cost

of these measures to . . . in 2008, no more than 0.5% of the amount paid per kilowatthour by those customers during the year ending May 31, 2007.

(220 ILCS 5/12-103(d) and (d)(1)). (Emphasis added). It limits what can be imposed on consumers, but, it makes that limitation in a uniform manner to be applied to all consumers. This portion of the statute does not aid BOMA.

Unlike the IIEC's simple, straightforward approach which merely creates three broad customer classes, BOMA seeks to impose 15 different rates for 15 different classes. Due to the brevity of time afforded by the General Assembly, it is not possible to determine whether BOMA's approach is a reasonable one.

We also note that necessarily, dividing the charge amongst 15 customer classes in the manner described by BOMA would require the expenditure of some time and money, unnecessarily, thereby diverting some efforts from the achievement of the statutory goals. We decline to adopt BOMA's recommendations on this issue.

Constellation New Energy's proposal appears to be that, essentially, a utility should be required to determine which customers of alternative electric suppliers are participating in demand response or energy efficiency programs offered by an alternative electric supplier, and then exclude these persons or entities from the charge imposed for energy efficiency and demand response, or, offer those persons or entities a discount. However, there is no evidence indicating what such a process would entail, or, if it is even feasible. We therefore decline to follow this recommendation.

## **8. "Banking" Energy Savings and Excess Expenditures**

The statute contains specific goals for energy savings due to energy efficiency measures and programs and demand response programs. (See, e.g., 220 ILCS 5/12-103(b)). It also imposes specific spending limits. (220 ILCS 5/12-103(d)). ComEd seeks Commission approval of its request to "bank" any excess savings and use those excess savings in the following year to meet that year's statutory energy efficiency or demand response goal. In such a situation, forecasted costs for the next year of the plan, correspondingly, would be adjusted downward to reflect the need to achieve a lower kilowatt-hour reduction in that year. (ComEd Ex. 2.0 at 40).

In addition to "banking" energy savings, ComEd seeks Commission approval of its request to "bank" any excess expenditures. ComEd contends that, because it will be running several programs at once, it would be virtually impossible to just stop spending when it reaches the statutory spending limit. ComEd seeks approval to recover any *de minimus* costs that may exceed the spending cap in any plan year, when they are prudently and reasonable incurred, even when ComEd does not exceed the energy efficiency or demand response goal for that year. (See, e.g., ComEd Exs. 9.0 at 10; 11.0 at 15).

Staff witness Mr. Zuraski does not oppose "banking" energy savings. He notes that allowing "banking" energy savings motivates a utility to pursue savings above the goals set for in the statute. (Staff Ex. 1.0 at 46). Both Mr. Zuraski and DCEO opine that the statute is biased toward short-term, highly cost-effective efficiency measures. With

“banking,” any over-savings in one particular year would allow programs to focus on longer-term efficiency measures that would not otherwise be possible. (See, e.g., DCEO Ex. 2.0 at 14; Staff brief at 44-5). However, Staff expressed the concern that this proposal could lead to a situation, in which, the costs carried over from one plan year to the next could be completely offset by virtue of carrying forward the over-compliance with the previous plan year’s energy savings goal. (Staff Ex. 2.0 at 7).

In its brief, Staff acknowledges that its witnesses have expressed sound policy considerations in favor of “banking” energy savings, but, Staff contends that “banking” is not permitted by the statute. In support, Staff cites the statute, which provides that, notwithstanding the requirements of subsections (b) and (c), an electric utility “shall reduce” the amount of energy efficiency and demand response measure implemented in any single year by whatever is necessary to achieve the prescribed levels in the statute, citing 220 ILCS 5/12-103(d)). Staff reasons that the plain language in the statute requires ComEd to reduce the amount of energy efficiency and demand response measures by whatever is necessary to limit the estimated average increase in what a retail customer pays to certain prescribed levels in the statute. It reasons that therefore, each year’s energy efficiency and demand response goals are in addition to achievement of the previous year’s goals. Staff further posits that because Section 103(b) of the Act refers to “cumulative savings goals,” instead of “incremental annual energy savings goals,” “banking” is also prohibited by Section 12-103(b) of the Act. (Staff brief at 59-61).

DCEO has proposed a potential middle-ground on this issue. DCEO recommends that the Commission limit amount of “banked savings” that could be carried over in any given year to some fraction of the savings required in that year. This approach alleviates any concern that, if much is carried over, the next year’s programs could be severely curtailed or eliminated. (See, DCEO Ex. 2.0 at 15).

## Analysis and Conclusions

With regard to “banking” energy savings, we agree with Staff’s construction of the statute. For example, in the first year of its implementation, the statute requires that:

Notwithstanding the requirements of subsections (b) and (c) of this Section an electric utility shall reduce the amount of energy efficiency and demand-response measures implemented in any single year by an amount necessary to limit the estimated average increases in the amounts paid by retail customers in connection with electric service due to the cost of these measures to . . . in 2008, no more than 0.5% of the amount paid per kilowatthour by those customers during the year ending May 31, 2007.

(220 ILCS 5/12-103(d) and (d)(1)). (Emphasis added). The plain language in the statute does not allow utilities or DCEO to “carry over” excess energy savings. However, it seems to be inevitable that some *de minimus* “carry over” of energy savings would have to occur. It also appears to be likely that the General Assembly would have been aware of that fact when drafting the statute. It is quite possible that the General Assembly

chose the language in question to avoid one of the situations mentioned by Staff, that, a utility could “bank” energy savings in such a manner as to render its program in a “banked” year to be an ineffectually slight amount, or, even non-existent.

We note that DCEO’s approach strikes a balance between the concerns expressed by ComEd, that it may not know when it reaches the statutory goal, and that expressed by Staff which is, essentially, that utilities should not be provided with a motivation to decrease spending on energy efficiency programs in the “banked” year(s). Limiting the amount of allowable “banked energy savings” to a percentage of the banked year’s energy savings is reasonable. It is also reasonable to limit the amount that can be “banked” to one which would only allow utilities to “bank” a *de minimus* carry over, as anything further would violate the statute. Therefore, ComEd’s and DCEO’s request for Commission approval of “banked” energy savings is granted, but, they may “bank” no more than 10 percent of the energy savings required by statute in the year, in which, it is “banked.”

With regard to ComEd’s and DCEO’s request to “bank” any cost overrun from a previous year, we note that, as Staff has pointed out, “banking” energy savings is not the same as allowing a utility to recover plan costs that are in excess of the statutory spending requirements. We agree with ComEd that there may be situations, in which, it would be inevitable that *de minimus* cost overruns would occur. It, Moreover, the statute provides no barrier to utilities for to recover cost overruns. (See, 220 ILCS 5/12-103(d)).

## **9. Evaluation Measurement and Verification Issues**

### **c. “Deemed” Values**

#### **1. “Deemed” Energy Savings Values**

ComEd and DCEO seek Commission approval of their request to “deem” a table of measures that has annual kilowatt savings for those measures. This table concerns light bulbs. The kilowatt savings in that table were taken from California’s DEER program. (ComEd 6.0 at 39-40). “Deeming” is a way to stipulate to the value of energy efficiency measure savings with well-known and documented values for evaluation and program implementation purposes. These “deemed” values would be used for planning purposes and would also be used by the independent evaluator, unless that evaluator determined that they were inaccurate. Then, the changed value would be used prospectively from the time, at which, the evaluator determined that a new value should be used.

ComEd’s witness Mr. Jensen pointed out that Section 12-103(f) of the Act limits the amount of money that can be allocated to evaluation of the programs to three percent. Because this budget amount is so low, an evaluator will not be able to conduct the level of analysis required to independently determine the savings values for the over 1,000 measures included in the programs, and, also, calculate the Net to Gross ratios for all of the programs. He averred that if these values are not “deemed,” the evaluator will make an independent determination as to the savings values of these items. In so doing, that evaluator will be replicating well-established and widely relied-upon savings

research. According to Mr. Jensen, “deeming” savings is a common approach in the evaluation community. (ComEd Ex. 6.0 at 36-37). ComEd does not seek to have these values “etched in stone;” rather, it asks this Commission to deem them for the initial, pre-evaluation period of ComEd’s plan. Thus, if the independent evaluator later finds that a deemed value is inappropriate and provides evidence to support that assertion, the values can be adjusted prospectively. (*Id.* at 38).

DCEO posits that these annual kilowatt savings figures should be “deemed” temporarily, meaning that this Commission acknowledges that there is sufficient information regarding the energy savings values of these items and determines that the “deemed” value can be accepted as the basis for both planning purposes and evaluation during the three-year life of the plan, with the final values to be determined during the three-year period and applied prospectively from the time, at which, they are determined. (DCEO brief at 19).

The NRDC opposes “deeming” energy savings values. It points out that new federal legislation imposing heightened standards on incandescent bulbs may, in the future, change any value that is imposed now. (NRDC brief at 8). The ELPC, also, opposes “deeming” energy savings values. (ELPC brief at 4-5).

Staff opposes the “deeming” of any values. In Staff’s view, “deeming” is totally unnecessary. It contends that the Commission will not need these values until it makes its determination of energy savings pursuant to Section 12-103(i) and (j) of the Act. (Staff brief at 61-2).

## **Analysis and Conclusions**

As Staff points out, there seems to be no reason, at this time, to independently determine the energy savings values of certain types of light bulbs based on the values that were determined in California. However, “deeming” values now adds a level of certainty to, and definition in, the operation of a plan. And, light bulbs are not weather-sensitive. Therefore, DCEO’s recommendation that these values should be deemed, temporarily, with the final values to be determined before the end of the plan’s three-year period and applied prospectively, is a reasonable one. During the next three-year period actual values must be developed for use prospectively, in future years. Also, these values must be revisited every three years, or, more frequently, as, new technology may emerge that would change these values or render the use of certain technology obsolete.

### **2. “Deemed” Net to Gross Ratios**

The net effect of “free-ridership” and “spillover” is called a Net to Gross (“NTG”) ratio. (ComEd Ex. 6.0 at 26). Every customer that receives an incentive for undertaking a specific program-sponsored activity is a participant, but not every participant is motivated by a utility’s program. Some fraction of a program’s participants will be what is termed “free-riders,” which are, participants in a program that would have undertaken the desired action, even without the program. The estimated savings for a program is reduced by the amount of savings attributed to these “free riders.” At the same time, however, there are customers who undertake the action the program is attempting to

motivate based on the program's influence, but who do not actually take any incentive from the program. These customers are known as "spillover" customers. (*Id.*).

In Mr. Jensen's testimony is a table of Net to Gross ratios for various programs, taken from the California PUC Energy Efficiency Policy Manual. (ComEd Ex. 6.0 at 42). ComEd asks this Commission to "deem" these ratios. ComEd requests that any change to these values would be adjusted prospectively, not retrospectively. Unlike the situation with deeming values, however, a Net to Gross ratio establishes a value reflecting a *program's* net impact, as opposed to the value of a measure, such as a light bulb. (*Id.* at 45-6). ComEd contends, however, that if studies in Illinois in future years yield different numbers, it does not oppose adoption of those values, prospectively, from when they are developed. (ComEd Ex. 12.0 at 13; ComEd brief at 34).

Staff witness Mr. Zuraski points out that these values, by and large, are all .08%. To him, they appear to be "guesstimates." Mr. Zuraski points out that the California PUC Energy Efficiency Policy Manual provides that "Program proposals may utilize a default NTGR of 0.8 until such time as a new, more appropriate, value is determined in the course of a program evaluation." (Staff Ex. 1.0 at 31). Staff argues that the California PUC Energy Efficiency Policy Manual does not explain the basis for 0.8% values. Staff further cites the testimony of ComEd's witness Mr. Hall, who acknowledged that NTG ratio values are an "inexact science." (Staff brief at 58-59; ComEd Ex. 13.0 at 8).

DCEO contends that these Net to Gross ratios should be "deemed" temporarily, meaning that this Commission acknowledges that there is sufficient information regarding the Net to Gross ratios, and it determines that the "deemed" ratio can be accepted as the basis for both planning purposes and evaluation during the three-year existence of the plan. (DCEO brief at 19).

The AG opposes "deeming" Net to Gross ratios. The AG points out that California has had decades of experience in energy efficiency and California has a more aggressive and comprehensive portfolio of programs than Illinois will have during the next three years, which, necessarily, will create differences. According to the AG, California's energy efficiency and demand response programs have had a high level of participation. The AG also avers that information gleaned from other Midwestern states, which are much more similar to Illinois than California, is widely available. (AG brief at 6-8).

The NRDC, as well, opposes deeming Net to Gross ratios. It maintains that revising these values retrospectively, based on evaluation results, is not a novel concept. In fact, according to the NRDC, the California Public Utilities Commission "deems" values, with a subsequent "true-up" based on evaluation study results. The NRDC further contends that the Net to Gross values sought to be deemed, which are California DEER values, will be updated in 2008. Thus, the values at issue here will soon be outdated. (NRDC brief at 7).

The NRDC also contends that the Commission should order ComEd not to include "spillover" in any net to gross calculation. This is unwise, it contends, because

the evaluation amount budgeted by the General Assembly, is only three percent, which is very low. (*Id.* at 9).

The ELPC opposes “deeming” Net to Gross ratios. (ELPC brief at 4-5). It points to information that it claims was withheld from it during discovery in a different docket, docket 07-0539, Ameren’s energy efficiency docket. (ELPC brief at 4-5). Without any citation to the record, the ELPC contends that this information contained significant information regarding the vintage and saturation levels of appliances in ComEd’s service territory. Also without any citation to the record, the ELPC further contends that ComEd helped fund the report, and, thus, it is known that it possessed this document. However, according to the ELPC, Mr. Jensen did not see this report. Thus, the ELPC concludes that it is not known whether his testimony would be affected, had he reviewed it. (*Id.*).

### **Analysis and Conclusions**

Unlike the situation with “deemed values,” the Net to Gross ratios that ComEd seeks to have this Commission “deem” concern programs, not just measures. No evidence was presented establishing that the programs referred to in the California Energy Efficiency Policy Manual contain the same elements or measures as the programs ComEd plans to proffer to the general public. These values are also “default” values, meaning that they are to be used only when real analysis is not possible. (See, Staff Ex. 1.0 at 31). Further, according to Staff, the California PUC Energy Efficiency Policy Manual does not explain the basis for the 0.8% values. Also, there is no evidence that use of California’s “default values” with changes applied only prospectively, is the accepted method in the evaluation community. In short, there is no indication, from the evidence provided, that the Net to Gross ratios that ComEd seeks to have this Commission “deem” are accurate or applicable. We conclude that ComEd’s program should contain actual Net to Gross ratios.

We, therefore, decline to “deem” ComEd’s Net to Gross ratios. We encourage ComEd to work with its EM&V Evaluator to develop Net to Gross ratios using any information it has, as well as, information available regarding other Midwestern states, which are more similar to Illinois than California is. Working closely with this evaluator should eliminate any “surprise” in the form of a Net to Gross ratio from the evaluator.

However, we decline to order ComEd to exclude “spillover” from any Net to Gross ratio calculation. The NRDC alludes to the statutory budget for evaluation, which is three percent. Presumably, its argument is that excluding “spillover” would save money. However, no evidence regarding this issue was presented at trial. It is therefore waived. Moreover, because there is no evidence on this issue, there is no showing that excluding “spillover” would not skew the ratios, or as to how much money would be saved, or any other fact that would establish that such a proposition would be a prudent course of action. Finally, we note that Mr. Jensen testified, essentially, that calculation of “spillover” is the accepted practice in the evaluation community. There is no evidence suggesting that this is incorrect.

We further note that at trial, counsel for the ELPC did not make any kind of motion regarding the report that the ELPC claims was withheld during discovery. Also,

this report was not entered into evidence in any docket; thus, it is not possible to determine whether it is significant, or, whether ComEd funded it. However, the ELPC's point, which is, essentially, that Mr. Jensen's opinion may have changed, if he had received more geographically-specific information, is well-taken. This is yet another reason to require the development of actual Net to Gross ratios, based upon, among other things, any readily available information concerning Midwestern states, and to require that those ratios must be used during the first year of the plan's implementation, as opposed to prospectively.

### **3. Hiring and Firing the Independent Evaluator**

The statute in question requires utilities and DCEO to be evaluated by an independent evaluator regarding the cost-effectiveness of their portfolio of measures. (220 ILCS 5/12-103(f)(7)). ComEd, however, seeks Commission approval of its request to conduct the RFP process to hire this evaluator. (See, e.g., ComEd Ex. 2.0 at 42-45). It appears, therefore, that ComEd seeks Commission approval of a request to control the hiring and firing of this evaluator.

Staff argues that Section 12-103(f)(7) of the statute requires a utility to provide for an "annual independent evaluation of the performance of the cost-effectiveness of a utility's portfolio of measures." (Staff brief at 52; 220 ILCS 5/12-103(f)(7)). Staff further posits that the only way this independent evaluator can properly retain its independence from a utility is if the utility expressly relinquishes any authority to hire, fire, or limit the independent evaluator. It is Staff's opinion that because the statute requires this evaluator to report "independently" to the Commission, the Commission must maintain the ability to hire and fire the evaluator. (Staff brief at 53-54).

No party has presented an argument construing this portion of the statute.

### **Analysis and Conclusions**

The pertinent portion of the statute provides that

(utilities) shall . . . [p]rovide for an annual independent evaluation of the performance of the cost-effectiveness of the utility's portfolio of measures and the Department's portfolio of measures . . .

(220 ILCS 5/12-103(f)(7)). We agree with Staff that there is no logical way to interpret Section 12-103(f)(7) of the statute other than to conclude that an evaluator who reports to the Commission is one, over which, this Commission has the ability to hire and fire. Any other conclusion would render the statutory language cited above to be meaningless.

## **V. Program Design Issues**

### **a. Workshops**

The NRDC recommends that the Commission should require its Staff to conduct a rulemaking, which would entail workshops, on various topics, such as the appropriate



measure savings values, net to gross ratios, accounting rules for energy efficiency funds, financial compliance, and program information tracking and reporting. (NRDC brief at 15-16).

Staff took no position on this issue.

### **Analysis and Conclusions**

The Commission finds that these workshops will provide an excellent opportunity for Commission Staff, utilities and stakeholders to anticipate, learn about and address generic technical, program design, financing, evaluation, new technology and longer-term implementation issues – including but not limited to standards regarding the accounting of the funds collected, the appropriate measure savings values, Net to Gross ratios, financial compliance, program information tracking and reporting, and related issues. We note that the statutory requisites regarding energy efficiency and demand response are new to Illinois and involve many complex issues. We recognize that there resides a wealth of experience in many states that have been developing energy efficiency and demand response programs for many years, but we also recognize that much of that information and experience is not easily or readily available to Illinois utilities, Illinois Commerce Commission Staff or Illinois stakeholders in this process. Further, we recognize that a collaborative process, like these workshops, would assist all parties in developing a common knowledge base on these topics – outside of a litigation process. It should result in the development of better programs within the parameters and constraints established by the new statute. If external funding is available the workshop process should be facilitated and supported by knowledgeable experts in these fields. Staff should consult with the utilities and other stakeholders in establishing the framework and parameters for this process.

Staff is directed to conduct workshops on these and any related issues. The outcome of these workshops shall be in the form of a Staff report, setting forth Staff's recommendations regarding what rules, if any, need to be developed. We also direct Staff to investigate and prepare a report, within the next thirty (30) days, regarding the availability of external funding to support a facilitated collaborative process and if such funding is available, to begin such a facilitated collaborative process as soon as reasonably possible.

#### **b. ComEd's Demand Response Program: "Nature First"**

The statute requires ComEd to "implement cost-effective demand-response measures to reduce peak demand by 0.1% over the prior year for eligible retail customers . . . ." (220 ILCS 5/12-103(c)). A "demand response" program, generally, is one in which an electric provider can shut off the electricity flowing to a person or entity or turn off a large appliance (such as an air conditioner) during the summer "peak" times, in exchange for an "incentive," like a discount on an electric bill.

ComEd already has some demand response programs, such as, its direct load control programs, voluntary load reduction programs, capacity-based load response

programs and real-time pricing programs. (ComEd. Ex. 3.0 at 5). To meet the statutory demand response requisites, ComEd proposes to increase consumer participation in another preexisting demand response program, its "Nature First Program." (*Id.* at 6-7). In addition to the Nature First program, ComEd will be evaluating other demand response measures during the first three years to determine their viability. (*Id.* at 11).

ComEd's "Nature First" Program has been in existence for 12 years. This program is an air conditioning "cycling" program available for residential customers who own their own homes and have central air conditioning. Pursuant to this program, ComEd installs a switch that can shut off the air conditioning compressor during peak energy times. ComEd has two types of "Nature First" programs. Pursuant to one type, a residential air conditioner can be shut off for 15 minutes. In return, a customer receives a \$5 bill credit, with a total annual credit cap of \$20. Under ComEd's other "Nature First" program, ComEd can turn off a customer's air conditioning compressor on any weekday from 12:00 am. to 8:00 pm, for a maximum of one continuous three-hour period. That customer would receive a \$10 bill credit, with a total annual credit cap of \$40. Thus, the maximum financial return a residential consumer can receive from this program is \$40 per year. (ComEd Ex. 3.0 at 8).

Currently, "Nature First" has nearly 57,000 participants. ComEd's personnel estimate that, in order to meet the statutory demand response requirement in 2008, ComEd will need to enlist 8,092 new customers in its "Nature First" program. (ComEd. Ex. 3.0 at 7-8). ComEd anticipates that each participant in the program will reduce peak load by 1.4662 kilowatts, or slightly less than one and a half kilowatt. (ComEd. Ex. 3.0 at 9).

ComEd has used this program only 15 times in the past, for an average of 1.25 times per year. It has only been used during six of the twelve years, in which, it has operated. (ComEd Ex. 3.0 at 9). ComEd's witness Mr. Eber expressed reluctance to use this program, as its participants are not paid very much pursuant to this program. Thus, in his opinion, use of this program could result in consumers being "unwilling" to participate in the program for the amount of incentive currently provided. (*Id.* at 10).

ComEd seeks to widely expand its "Nature First" program through the use of advertising. Its estimated advertising cost per person targeted is \$80. (See, e.g., ComEd Ex. 3.0 at 13). Its total estimate for promotional costs for this program equal \$647,334, in 2008, \$630,975 in 2009 and 579,585 in 2010. (See, e.g., CUB Ex. 1.0 at 4).

CUB witness Mr. Thomas opines that these advertising costs are very high when compared to the maximum amount that a current program recipient could receive from this program, \$40. He points out that the impact of a typical "cycling program" on customer temperature levels within a structure is only one to three degrees. (CUB Exs. 1.0 at 3, 1.03). Mr. Thomas recommends that the Commission limit the recovery of these promotional costs to a number that represents only the number of customers targeted by ComEd's marketing efforts. (CUB Ex. 1.0 at 5). He also recommends that

ComEd should be required to “call up” (turn off customers’ air conditioning) more often, specifically, on twenty of the hottest days of the year. (*Id.* at 9).

ComEd points out that, pursuant to its program, it can only self-schedule a maximum of ten “calls” in the Nature First Program. Also, there are undefined serious risks to program participation when the program is called unnecessarily, especially when the maximum additional benefits per customer from “calling up” the program ten times in 2007 would have been \$1.54 per customer. (ComEd brief at 14). ComEd also argues that CUB’s witness Mr. Thomas did not analyze what comfort level a participating customer would experience, if ComEd were to increase the number of times their air conditioning was “cycled.” (*Id.*).

### **Analysis and Conclusions**

Marketing a program can be a hit-and-miss proposition. Not everyone targeted in a marketing campaign will become a “Nature First” participant. Therefore, we decline to limit the recovery of promotional costs to only the number of customers that ComEd plans to target with marketing efforts.

However, Mr. Thomas’ point is well-taken, especially since the projected cost of enticing a program participant is double the maximum amount of money that a program participant could receive from the program, which is \$40. And, the marketing tool ComEd plans to use appears to be nothing more than a direct mailing to potential customers, which, typically, would entail nothing more than a bill insert, or a letter. (See, CUB Ex. 1.0 at 4-5). Further, no explanation is provided as to why low-cost or no-cost marketing tools, such as press releases, public service announcements, information on ComEd’s web site and like items could not be used to inform the public of the existence of the “Nature First” program, thereby reducing marketing costs.

Also troubling is ComEd’s reluctance to actually *use* this program, given the low amount of money that a participant receives. It makes no sense to spend \$80 per person to entice a person to receive a maximum of \$40 from a program that, ComEd seems to acknowledge, does not pay a participant enough for it to actually use. (See, e.g., ComEd. Ex. 3.0 at 10). Given these facts, ComEd’s “Nature First” program, its only current attempt to comply with the demand response portion of the statute, must be redesigned so that its advertising costs are not so exorbitantly disproportionate to the benefits a participant can receive. It can accomplish this, in part, by paying its program participants more money through increased credits. It also can accomplish this goal, in part, through use of no-cost or low-cost marketing methods, such as public service announcements, updating its web site, and press releases. If ComEd redesigns its program in such a manner, another concern expressed by Mr. Thomas, that ComEd rarely uses this program, should also be addressed, since, according to Mr. Eber, ComEd’s reluctance to use this program is due to the fact that customer-participants are not paid very much. (*Id.*).

While we are not requiring ComEd to “call up” the program for any certain number of times, the approach set forth above, increasing credits, should be accompanied by an increase in the amount of times ComEd turns off a customer’s air conditioning, without causing that customer any discomfort. Also, the approach set forth

above should allow ComEd to further reduce advertising costs by maximizing the use of its existing customers, thereby obviating the necessity for as much advertising as was previously anticipated.

While failure to abide by the directives stated above could subject ComEd to disallowances in its prudence or statutory compliance review, we are reluctant to dictate to ComEd what the specific proper financial allocations to advertising or increasing consumer credits should be. We note that presently, ComEd is at the inception of the statutory requirements regarding demand response. The better approach, at this time, is to allow ComEd the flexibility to use its discretion to develop an effective program, as is needed, in accordance with those directives.

**c. “Leveraging” Existing Energy Efficiency Programs**

The City of Chicago’s witness Mr. Abolt testified that, as much as is possible, ComEd should “leverage” use of existing energy efficiency programs. Examples he provided included the City-AG Peoples Gas Settlement Fund<sup>3</sup>, which involves “investment in weatherization and energy-efficiency programs for low and moderate income residents,” the Chicago Industrial Rebuild Program, through which, Chicago provides energy assessments to certain “energy-intensive industries” and, the City of Chicago’s Energy Efficiency Building Retrofit Program, a program, pursuant to which, “cities have agreed to develop a program to make their municipal buildings more energy efficient and work with private building owners to retrofit their buildings with energy-savings technologies.” (*Id.* at 8-9). He opined that ComEd should identify these programs, and, to the extent practicable, use them, when resources can be shared between ComEd and the program sponsor. (Tr. 978). In his view, combining ComEd’s programs with existing programs will extend the reach of the programs in ComEd’s plan and reduce some costs in ComEd’s plan. (City Ex. 1.0 at 3-9).

The City of Chicago argues that this use of existing programs can provide information and serve as a delivery mechanism for the programs and measures that ComEd proposes to implement. (City brief at 6). The City avers that, if ComEd uses other programs and shares the cost with the existing programs, the non-incentive costs will increase the benefit-to-cost ratio of ComEd’s programs and increase the total money available for incentives, which increases customer participation. (City brief at 6-7). The City of Chicago and the AG have gathered and created, at their own expense, information regarding programs and resources that could also be targeted by ComEd. (Tr. 104-5). The City’s recommendation is only that the Commission should establish a preference to use this information, or like information, to the extent that “leveraging” these programs would reduce ComEd’s program costs.

The NRDC agrees with the City of Chicago. Its witness, Mr. Henderson, identified three non-incentive cost categories that could be used to capture key portfolio and program activities. They are: administration; implementation; and marketing and

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<sup>3</sup> This fund appears to have resulted from the settlement of Docket No. 01-0707, *Illinois Commerce Commission v. The Peoples Gas Light and Gas Co.*

outreach. (See, NRDC Ex. 1 at 12). The NRDC contends that ComEd should be required to identify pre-existing programs and work with those program's implementers to assess whether coordinating with pre-existing programs could improve portfolio cost-effectiveness. (NRDC brief at 15).

ComEd's witness Mr. Brandt testified that ComEd designed its programs to be offered across its entire service territory, not just in the City of Chicago, which constitutes only one-third of ComEd's service territory. (ComEd Ex. 9.0 at 18). However, Mr. Brandt also stated that "ComEd is more than willing to explore with the City and any other entities any potential synergies that may exist between ComEd's proposed programs and other current programs that exist." (*Id.* at 17). ComEd acknowledges that the potential to "leverage" current programs exists, including those offered by the City of Chicago. As a part of the stakeholder advisory process, ComEd expects to work with interested parties to evaluate and develop "leveraging" opportunities that would improve the economics of its programs. (ComEd brief at 13). Potential "leveraging" opportunities may include the City's suggestion that ComEd leverage the energy efficiency recommendations identified through CIRP, (the Chicago Industrial Rebuild Program) thereby taking advantage of the fact that audits have already been conducted, so that ComEd could move to the implementation phase more quickly with these customers. (*Id.*).

### **Analysis and Conclusions**

The City's proposal is reasonable and it should be adopted. Mr. Brandt indicated a willingness to explore "potential synergies" between its programs and other current programs. Thus, ComEd appears to be willing to adopt the City's proposal. ComEd is directed to explore this topic with its advisory committee and use information compiled by the AG and the City of Chicago, as well as any other information that is readily available, to determine whether ComEd can add to existing programs in a manner, in which, the funds collected pursuant to the statute are used in a manner that reduces program costs, provided that such "leveraging" would meet the TRC test. However, while we are expressing a preference for "leveraging" existing programs that meet the TRC test, which is required by statute, we are *not* requiring ComEd to "leverage" any such program. ComEd needs time to develop strategies to learn about and implement existing programs. It also needs the flexibility to determine which existing programs correspond to that which it will be offering pursuant to its plan.

In testimony, ComEd expressed the concern that even distribution of the funds collected pursuant to the statute in question might not occur with regard to the other two-thirds of ComEd's territory, which is that which is outside Chicago's city limits. We note that the City of Chicago's recommendation is not limited to its programs; however, it is the third-largest city in the United States. Logically, therefore, it would have more programs than many other areas in ComEd's territory. ComEd is urged to take advantage of existing programs, including, but not limited to, those offered by the City of Chicago, in a manner, in which, the distribution of the energy-efficient incentives is not unduly concentrated in the City of Chicago. Logically, this would entail the "leveraging" of Chicago's programs, in a manner, in which, funds available to rural areas and areas, in which, no programs are offered by units of local government, are increased.

**d. Ownership of Environmental Attributes**

The City of Chicago's witness Mr. Abolt testified that the energy efficiency resources that are the subject of this docket have environmental and other attributes that could be used to satisfy voluntary and mandatory environmental legal requirements. In his opinion, these environmental attributes should be owned by program recipients. (City Ex. 1.0 at 10).

DCEO's witness Mr. Feipel testified that, because the energy reductions resulting from implementation of energy efficiency programs were mandated by a state law, the state of Illinois owns the environmental attributes created by ComEd's energy efficiency programs. (DCEO Ex. 2.0 at 15).

ComEd contends that the City of Chicago did not define what an "environmental attribute" is, or how a person would own such an attribute. It concludes that this proposal is not sufficiently clear or developed to be considered in this docket. (ComEd brief at 13).

Staff maintains that, given that the statute does not address this issue, this Commission may not have the authority to address it in this docket. Staff argues that, if the Commission should consider this issue, it should also consider that, while such treatment would be beneficial to the City of Chicago or other large organizations because residential and small commercial customers, seemingly, would not be in a position to "monetize" the value of the "attributes." Also, the funds for these resources come from all ratepayers. Staff opines that therefore, there seems to be no reason to allow the City of Chicago or other any other large organization to acquire ownership of these attributes. On the other hand, if ComEd were to retain ownership of these attributes, and, also, able to "monetize" these attributes, any revenues received by ComEd as a result, seemingly, would flow through the Rider in question, Rider EDA, to the ratepayers. (Staff brief at 65).

**Analysis and Conclusions**

We note that no party has provided information as to what the law confers or requires regarding these "environmental attributes." Therefore, we agree with ComEd that it is not possible to determine, based on the scant information provided on this issue, who would own environmental attributes, what, exactly these attributes are, what the value of the attributes are, what can be done with these attributes, and what value they have. It also appears, from the scant information provided, that allowing consumers to retain those attributes could involve a tremendous amount of bookkeeping on the part of ComEd. This is true because normally, ownership occurs after a transfer of title to the asset in question. It would therefore appear that ComEd would be required to issue some document acknowledging a transfer of title or, at least, that ownership exists.

This seems to impose unnecessary costs, thereby decreasing the amount of funds available for program incentives and administrative costs. Moreover, as Staff points out, it may very well be that allowing ComEd to retain these benefits could inure to the benefit of its ratepaying consumers. Finally, the statute in question is

comprehensive; yet, it makes no mention of whom or what should own the environmental attributes associated with energy savings. We decline to adopt the City's recommendation on this issue.

**e. Access to Consumption Information for Commercial Customers**

The City of Chicago, BOMA and the Consumer Powerline contend that a barrier to effective programs for large commercial buildings is the lack of free access to building consumption information. (See, e.g., BOMA Ex. 1.0 at 4; CPLN brief at 24). The City's witness Mr. Abolt testified that this information is necessary so that energy efficiency measures can be more precisely designed to most efficiently meet individual building owners' needs. This is true, Mr. Abolt stated, because the City of Chicago will be partnering with BOMA and Energy Star in 2008 to increase the energy efficiency and waste reduction of large commercial buildings. (City Ex.1.0 at 11). Mr. Abolt also recommends that the Commission require ComEd to install interval meters as a part of its Business Solutions Program. In his opinion, such meters are necessary so that ComEd will be able to acquire the information necessary to design energy efficiency programs. (*Id.* at 12).

However, the City of Chicago does not seek an order requiring ComEd to provide real-time information to building owners. (City brief at 19). Rather, it asks that ComEd should consider providing what energy usage information it has, at no cost to the City-BOMA Energy Star program participants. (*Id.* at 20). The City also seeks to require ComEd to re-run the TRC test for the Business Solutions program with the assumption that ComEd pays for interval meters. It reasons that, if this program passes the TRC test under those assumptions, an important barrier to customer participation and program success can be eliminated. (*Id.* at 21).

BOMA's witness Mr. Zarumba testified that, in order to react to price signals from organizations like PJM, interval meters and information feeds require much smaller intervals than those that have been provided to large buildings in the past. ComEd's tariffs have traditionally been based upon 30-minute intervals. However, according to Mr. Zarumba, in order to react to PJM price signals, the interval must be shortened to five minutes. (BOMA Ex. 1.0 at 7).

BOMA's witness Mr. Skodowski acknowledged that, while ComEd will provide the building energy consumption information that is needed for benchmarking to building owners that participate in ComEd's Business Solutions program, this is not enough. (BOMA Ex. 2.0 at 7). He opines that this Commission should require ComEd to provide automated information transfers for benchmarking. (*Id.* at 7). According to BOMA's witness Mr. Cushing, an "automated information transfer" is a meter/information infrastructure. In his view, this infrastructure will improve competition and, it will enable demand response program designers and others to anticipate the impact of, and benefit of, demand response. (BOMA Ex. 3.0 at 6). BOMA's witness Mr. Zarumba contended that the Commission should require ComEd to make real-time information regarding customers' electric usage available to customers for free or at a minimal cost. (BOMA Ex. 1.0, at 3).

ComEd asserts that it will include whatever energy consumption information it has for non-residential customers that participate in its Business Solutions energy efficiency program. The only cost such a customer will incur will be the cost of interval metering equipment. (ComEd brief at 14-15). However, ComEd's witness Mr. Brandt testified that it is not possible or practical to provide real-time energy usage information for free or at a minimal cost at this time. He testified that presently, ComEd does not have the infrastructure for real-time capabilities. Also, ComEd proposes to provide free information only to participants in the Business Solutions program, not to all commercial customers. (*Id.*).

### **Analysis and Conclusions**

We encourage ComEd to provide whatever information it has to BOMA members, and to consider developing methodologies that will aid BOMA and other large commercial consumers with regard to their electric usage decisions. We also note that ComEd has indicated that it will provide whatever it can to participants in its Business Solutions programs. However, we decline to order ComEd to provide entities that are not program participants with free information or meters or like items. There simply was no reason articulated for all of ComEd's customers to pay for information that would be useful to only a few customers. The City and BOMA do not provide this Commission with any information establishing that non-participants in ComEd's energy efficiency or demand response programs should be given items at the expense of all of the ratepayers. Further, there is no evidence to suggest that ComEd *can* provide the real-time pricing that has been requested at this time.

As for the arguments concerning requiring "automated information" and re-running a TRC test, we note that BOMA did not provide information as to what "automated information transfers" are, what is involved in providing such information, and, what cost would be involved with requiring ComEd to prove this "automated information." And, the City of Chicago provided no information as to what re-running the TRC test would accomplish. Therefore, we decline to adopt these recommendations.

#### **f. Establishment of a "Formal Partnership" with BOMA**

BOMA contends, essentially, that, in order to better develop commercial energy efficiency programs, this Commission should order ComEd to establish a formal partnership between ComEd and BOMA. (BOMA Ex. 2.0). The Consumer Powerline also endorses the establishment of such a partnership. (CPLN brief at 24).

ComEd, however, asserts that this request is not developed and is outside the scope of the statute in question. (ComEd brief at 15).

### **Analysis and Conclusions**

While we encourage ComEd to do what it can to develop meaningful demand response and energy efficiency programs for BOMA and/or its members and like entities, we are reluctant to micromanage ComEd's program to the point, at which, we order ComEd to establish some sort of "partnership" with BOMA. As ComEd points out, no information was provided as to what forming this "partnership" would accomplish or



what it would entail. While it would appear to be wise to consider input from an entity such as BOMA, pursuant to the new statute, ComEd and DCEO are the entities that are legally responsible for the success of the programs in question.

**g. Uniform Energy Efficiency Program**

The ELPC's witness Mr. Crandall testified that "branding" (having a logo associated with energy efficient programs) is an important part of the long-term success of ComEd's program. He opined that the energy-efficiency programs would be enhanced by a unified, state-wide brand and marketing campaign that is supported by ComEd, Ameren, and DCEO. He acknowledges, however, that both utilities do not need to have uniform incentive levels for consumers, as the market conditions vary across the state and each utility should have the flexibility to respond to those differences. (ELPC Ex. 1.0 at 7).

**Analysis and Conclusions**

At some point in time, a uniform energy-efficient brand, such as the federal "Energy Star" label, could create easy customer identification of energy-efficient items. However, the programs are nascent. We note that the statute has provided the utilities with very little time to devise programs and get them "up and running." At this point in time, creation of a state-wide brand would only divert attention, time and money, from the creation of, and administration of, well-run energy efficiency programs. Therefore, we decline to adopt this proposal at this time.

**h. Statewide Consistency and Coordination**

The NRDC asserts that the Commission should adopt a policy of statewide consistency in energy efficiency and demand response program design, administration and implementation and evaluation, when such consistency reduces costs, reduces administrative burdens or improves program performance. (NRDC brief at 15).

**Analysis and Conclusions**

This Commission agrees that coordination between Ameren and ComEd, as well as with DCEO, when such coordination reduces costs or administrative burdens, or, when such coordination would improve program performance, is desirable. We encourage the utilities to coordinate as much as possible. However, we decline to *require* the utilities to do so. There are obvious differences in the territories of the two utilities regarding many items, including, but not limited to, labor costs, housing structure, population density, and, even topography. The utilities must be able to retain the flexibility to address appropriately those differences.

**i. Development of a Statewide Energy Efficiency Web Site**

The NRDC recommends that the Commission order DCEO or ComEd to build and maintain a statewide energy efficiency web site. DCEO agrees that such a web site would be useful, but, it asserts that it may not have enough money to do so.

ComEd points out that it already has a web site, to which, its customers have grown accustomed. Also, the costs associated with a statewide web site have not been built into ComEd's plan. (ComEd brief at 15-16).

### **Analysis and Conclusions**

We decline to order ComEd or DCEO to provide statewide information on a web site. We note initially that most of the programs requiring customer participation will be offered by the utility, not DCEO. Therefore, logically, most consumers who desire more information about energy efficiency programs would look to the utility sponsoring the program(s) for information. ComEd has indicated that it intends to place information about its programs on its web site. We see no reason, at this time, which is, the inception of energy efficiency and demand response programs, to burden the utilities or DCEO with creation of a statewide web site.

#### **j. The ELPC's Customer Education Issues**

The ELPC asserts that this Commission must direct the utilities to better educate customers regarding steps they can take to improve efficiency and save money. (ELPC brief at 13-14). The ELPC points out that lowering a thermostat a few degrees, and purchasing a programmable thermostat are just a few ways that consumers can save energy costs. Also, according to the ELPC, consumers should be advised that appliances may carry a "phantom load," even when off, and, they should be advised that some appliances, like plasma TVs, consume a great deal of electricity. The ELPC posits that this type of information should be available in ComEd's customer education program. (*Id.* at 13-15).

### **Analysis and Conclusions**

ComEd is encouraged to include any information in its marketing, or, on its web site, that would enable a consumer to reduce consumption. However, at this point in time, we decline to "micromanage" ComEd to the point, at which, we determine what information should be in a utility's customer education program, or, on its web site.

## **VI. Findings and Ordering Paragraphs**

This proceeding is governed by Section 12-103 of the Public Utilities Act, which was enacted in the summer of 2007. That legislation establishes a policy in Illinois to use cost-effective energy efficiency and demand response measures to reduce electricity delivery load. Moreover, it establishes certain firm savings goals and requires the Illinois electric utilities to develop and submit specific plans to meet those goals.

As is required by Section 12-103 of the Act, the Commonwealth Edison Company and the Illinois Department of Commerce and Economic Opportunity filed their 2008-2010 Energy Efficiency and Demand Response Plan with the Commission on November 15, 2007. The statute directs the Commission to "issue an order approving or disapproving [the] plan within 3 months after its submission." (220 ILCS 5/12-103(f)). This extremely accelerated docket is the result of the three-month time-frame required by the General Assembly. The Commission's guidelines for approving or disapproving

the Plan are set forth in the statutory filing requirements of 12-103(f)(1)-(7). Thus, if the evidence in the record shows that ComEd has met each of these seven filing requirements, its Plan should be approved.

For the reasons stated herein, we conclude that the Energy Efficiency and Demand Response Plan filed by Commonwealth Edison Company and the Illinois Department of Commerce and Economic Opportunity meets the requirements of Section 12-103, is consistent with Section 12-103's objectives, and, it is hereby approved, subject to the conditions and modifications stated herein. The Commission, having considered the entire record, and being fully advised in the premises, is of the opinion and finds that:

- (1) Commonwealth Edison Company is an Illinois corporation engaged in the transmission, sale and distribution of electricity to the public in Illinois, and is a public utility within the meaning of Section 3-105 of the Public Utilities Act, and an electric utility as defined in Section 16-102 of the Public Utilities Act;
- (2) the Illinois Department of Commerce and Economic Opportunity is a state agency that is statutorily obligated, pursuant to 220 ILCS 5/12-103(e), to implement 25 percent of a utility's energy efficiency and demand response plan, therefore, pursuant to statute, this portion of the plan is subject to Commission approval before implementation;
- (3) the Commission has subject-matter jurisdiction and jurisdiction over Commonwealth Edison Company and the Illinois Department of Commerce and Economic Opportunity;
- (4) the findings of fact set forth in the prefatory portion of this Order are supported by the evidence of record and are hereby incorporated into these findings;
- (5) the testimony and exhibits admitted into the record provide substantial evidence that 2008-2010 Energy Efficiency and Demand Response Plan presented by the Commonwealth Edison Company and the Illinois Department of Commerce and Economic Opportunity in this docket meets the filing requirements of Section 12-103(f) of the Public Utilities Act, subject to the conditions, modifications, and requirements herein;
- (6) subject to the conditions, modifications, and requirements stated herein, the testimony and exhibits admitted into the record further provide evidence that Commonwealth Edison Company's proposed mechanism for recovering the costs that are prudently incurred in association with the energy efficiency and demand response measures by those two entities, Rider EDA – Energy Efficiency and Demand Response Adjustment, is just and reasonable.

- (7) as the record in docket 07-0541 was severed and combined with the record in this docket, the Chief Clerk should mark the record in that docket "Heard and Taken" and otherwise close that docket.

IT IS THEREFORE ORDERED by the Commission that Commonwealth Edison Company's Supplemental Petition, as well as the Petition filed by the Illinois Department of Commerce and Economic Opportunity, requesting approval of their 2008-2010 Energy Efficiency and Demand Response Plan and the proposed Rider EDA – Energy Efficiency and Demand Response Adjustment is hereby granted, consistent with the conclusions contained herein.

IT IS FURTHER ORDERED that the Commonwealth Edison Company is hereby authorized to and directed to file tariffs containing terms and provisions consistent with and reflective of the findings and determinations made in this Order.

IT IS FURTHER ORDERED that all motions, petitions, objections and other matters in this proceeding that remain unresolved are hereby disposed of in a manner consistent with the conclusions herein.

IT IS FURTHER ORDERED that the Chief Clerk of this Commission is directed to mark the record in docket 07-0541 "Heard and Taken" and otherwise close that docket.

IT IS FURTHER ORDERED that, subject to the provisions of Section 10-113 of the Public Utilities Act and 83 Ill. Admin. Code 200.880, this Order is final; it is not subject to the Administrative Review Law.

By Order of the Commission this 6<sup>th</sup> day of February, 2008.

(SIGNED) CHARLES E. BOX

Chairman